

SAS COMBAT VEHICLES 1942–91



GAVIN MORTIMER

**ILLUSTRATED BY HENRY MORSHEAD &
IRENE CANO RODRÍGUEZ**

NEW VANGUARD 295

SAS COMBAT VEHICLES 1942–91



GAVIN MORTIMER ILLUSTRATED BY HENRY MORSHEAD AND
IRENE CANO RODRIGUEZ

CONTENTS

INTRODUCTION	4
SELF-SUFFICIENCY: THE BLITZ BUGGY	6
SAS DESERT JEEPS	10
THE ITALIAN JOB, 1943	18
SPROUTING WINGS: JEEPS IN FRANCE, 1944	21
INTO GERMANY	32
POST-WAR: THE LAND ROVER ERA	39
FURTHER READING	47
INDEX	48

SAS COMBAT VEHICLES 1942–91

INTRODUCTION

The origins of the Special Air Service began, somewhat ironically, not in the air but under the ocean. In late April 1940, Bill Stirling and five other British Army officers had tried unsuccessfully to mount a covert operation in Norway, an operation that had failed when the submarine in which they were travelling north developed engine trouble and returned to Scotland. Stirling, a Scottish laird with a grand house set among the rolling countryside of central Scotland, was disappointed but not defeated by the failure of Operation *Knife*. Together with his five comrades, Stirling was granted permission to establish a guerrilla warfare training school within the 15,000 acres of his estate. Their idea was enthusiastically supported by the new Prime Minister, Winston Churchill, an ardent admirer of irregular warfare since he witnessed at first hand the effectiveness of the Boer commandos during the South African War of 1899 to 1902. As the number of recruits to Stirling's guerrilla warfare school grew, it became necessary to find a larger and more isolated base. Lord Lovat, a cousin of Stirling's, suggested using some of his land at Inverailort, a remote stretch of coastline between the isles of Mull and Skye. Among the new instructors was Stirling's younger brother,

A rare view of an SAS patrol on its return from operations in the desert, uniforms dirty and appearance unkempt, in Cairo in early 1943. It's interesting to see that the SAS has acquired a Ford F30, the truck used by the LRDG in 1941. Previously the LRDG had used a Chevrolet WB, in 1942, replacing the Ford with the Chevrolet 1533. The Fords were not popular with the LRDG, which found them heavier and less nimble than the Chevrolets as well as less fuel efficient. (Gavin Mortimer)



David, skilled in the arts of climbing and fieldcraft, and one of the students was the actor David Niven, who, at the outbreak of World War II, had returned from Hollywood and re-joined the army as a lieutenant. He divided the men at Inverailort into two groups: 'There are the genuinely courageous who are itching to get at the throat of the enemy, and the restless who will volunteer for anything in order to escape from the boredom of what they are presently doing.'

David Stirling fell into the latter category. As an officer in the Scots Guards – he had been nicknamed the 'Giant Sloth' by his peers because of his indolence – he had persuaded his brother to appoint him as an instructor to escape the tedium of regular soldiering. Stirling subsequently volunteered for Layforce, the commando unit named after its founder, Colonel Robert Laycock, in the hope of seeing some action. However, when Layforce was shipped to the Middle East in early 1941, the opportunity to put its commando skills to good use was limited by the ignorance of the higher command and the fluctuating nature of the war in North Africa following the arrival in Libya of Germany's Afrika Korps.

Stirling foresaw the demise of Layforce weeks before the unit was disbanded in July 1941, and had, with another intrepid officer, Jock Lewes, undertaken some experimental parachute jumps. Stirling injured his back on one jump and, during his recuperation in a Cairo hospital, committed to paper an idea for a small parachute unit to carry out raids behind enemy Axis lines. 'I sought to prove' he wrote, '... that 200 properly selected, trained and equipped men, organized into sub-units of five, should be able to attack at least thirty different objectives at the same time on the same night as compared to only one objective using the current Commando technique.'

Granted permission by Middle East HQ to raise a unit comprising six officers and 60 other ranks, Stirling's force was called 'L' Detachment of the Special Air Service Brigade. The inaugural SAS raid was a bitter failure that robbed Stirling of 34 men, either killed or captured after they parachuted into Libya on the night of 16/17 November 1941. The operation – timed to coincide with the start of the Eighth Army's Operation *Crusader* – was launched into the teeth of a howling gale, scattering Stirling and his men far and wide. Only Stirling and 20 soldiers reached the rendezvous with the Long Range Desert Group (LRDG), which loaded the bedraggled survivors into the back of their Ford F30 trucks. The LRDG, the pioneer of British special forces warfare, had been formed 18 months earlier, and its knowledge of the desert was unmatched among European nations.

Initially, the LRDG had been equipped with the Chevrolet WB (30 CWT), a vehicle it found ideal for long-range patrols deep inside the enemy-held Libyan desert. However, a shortage of new Chevys compelled the LRDG to look for a new truck in early 1941 and the

David Stirling, seen here in North Africa sometime in 1942 leaning against a Chevrolet 1533X2 30 cwt truck of the Long Range Desert Group (LRDG). The inaugural Special Air Service (SAS) raid ended in disaster and compelled Stirling to abandon the idea of parachute insertion. Instead, he partnered with the LRDG, which transported the SAS to its targets in its trucks. The LRDG had used Ford F30 CMPs for most of 1941, but as wear and tear took its toll they were replaced with 200 Chevrolet 1533X2s in March 1942, a vehicle that had better weight distribution than the Ford, as the rear wheels were almost central to the rear body. (Gavin Mortimer)



model chosen was the Ford F30. It proved unpopular, despite the fact it was a four-wheel-drive vehicle with large tyres and high ground clearance. Whereas the Chevrolet could cover 240 miles on a single 20-gallon tank, the Ford F30's maximum range on its two 12¼ gallon tanks was 150 miles. In addition, the Ford's engine was troublesome; not only was it vulnerable to sand, but it was situated next to the driver and front passenger, making life very uncomfortable on long and arduous patrols. None of this particularly bothered David Stirling, however, who was grateful for the LRDG's offer to transport him and his men to their next target; it was safer than a parachute.

SELF-SUFFICIENCY: THE BLITZ BUGGY

The partnership formed between the SAS and the LRDG was built on mutual respect, even if this was concealed beneath some ribald but affectionate mockery. The latter dubbed the SAS 'parashits' and it in turn called the LRDG the Long Range Taxi Service; but a more efficient taxi service one would be hard pushed to find. The forte of the LRDG was navigation, as the SAS soon discovered. In December 1941 it transported two parties of the SAS, one led by Stirling and the other by Lieutenant Blair 'Paddy' Mayne, towards the airfields of Sirte and Tamet in Libya. The last mile was made on foot, and while Stirling had no luck at Sirte, Mayne and his raiding party destroyed 24 aircraft at Tamet with Lewes bombs, a 'stodgy lump' of plastic explosive and thermite rolled in motor car oil with a detonator, instantaneous fuse and a time pencil.

A fortnight later Mayne and his men returned to Tamet and destroyed a further 27 aircraft, while a party led by Lieutenant Bill Stirling accounted for 37 planes at Agedabia. 'The fruits of our co-operation with Stirling and his men were beginning to fall and this was only the start of even greater pickings,' reflected Captain David Lloyd Owen of the LRDG.

In fact, the first few months of 1942 was to be a period of frustration for the LRDG and the SAS. On 21 January General Erwin Rommel launched his Afrika Korps in a counter-attack against the Eighth Army, that forced it to withdraw 350 miles from the western border of Cyrenaica (eastern Libya) to the Gazala Line. Among the possessions forfeited by the British was Jalo Oasis, erstwhile desert base for its special forces. Stirling, however, had a knack of turning a bad situation to his advantage and he decided that as the port of Benghazi was in Axis hands it was only fitting that it should be targeted. It would also be an opportunity for the SAS to be self-sufficient; the LRDG had been unstinting in its support, but ferrying the SAS to targets reduced its ability to carry out long-range surveillance operations on enemy traffic, and Stirling also craved autonomy.

The solution was a stripped-down Ford C11ADF station wagon. Stirling had discovered the vehicle in a base workshop (apparently it had been sent for repair after being damaged during unloading in Cairo) and he liberated it for his own purposes. 'It was well sprung and had a powerful engine, and the removal of the roof and sides had considerably increased its speed,' recalled Fitzroy Maclean, who had recently joined

Lieutenant-Colonel Blair Mayne, better known as 'Paddy', was the outstanding SAS operator in World War II. An Ireland and British Lions rugby international before the war, Mayne was a natural guerrilla fighter and it was his idea in 1942 to use the jeep as an offensive weapon. He led A Squadron on a successful mission to harry the retreating Germans in the autumn of 1942 and in Germany was awarded a third bar to his DSO after driving to the rescue of his men, who were pinned down by enemy fire. (Gavin Mortimer)





Johnny Cooper (second left) and Reg Seekings (right) were original members of the SAS and also served in France on Operation *Houndsworth*. Cooper was only 19 when he volunteered for the SAS and he and Seekings both travelled extensively with Stirling in the Blitz Buggy. On most occasions Stirling drove, but sometimes, if he wanted a nap, he would hand over the wheel to Cooper. In October 1940, shortly after he had joined the Commandos, Stirling was fined 10s by a Scottish court for driving a car without a valid driving licence. Admitting the indiscretion, Stirling told the court it was the 'result of a pure oversight'. (Gavin Mortimer)

the SAS. 'It was fitted with mountings for two machine guns in front and two behind. The guns themselves could be removed at will and placed out of sight on the floor.' The Ford C11ADF had the same voluminous 3.91-litre engine as the LRDG trucks, but its lighter chassis made it faster, although its fragile track rods were a liability in the unforgiving desert terrain. It was right-hand drive and had a maximum speed of 70mph.

Stirling had the C11ADF fitted with a spotlight, a sun compass and brackets for sand channels, and a radiator coolant expansion tank was installed to conserve engine coolant. Stirling nicknamed his acquisition the 'Blitz Buggy', probably drawing inspiration from the vehicle that had been designed by the American Bantam Car Company at the start of the war and was the forerunner of the Willys jeep. The Blitz Buggy had won the approval of the US Army's Ordnance Technical Committee specifications but not the War Department, which didn't award Bantam the contract because its estimate was over budget and there were concerns over the ability to meet demand within the tight timeframe.

Stirling's Blitz Buggy was painted grey (although one SAS veteran recalled it as dark green) to mimic the enemy's colours, even adding a broad white stripe across the bonnet, which was its air-recognition mark. The unit's insignia, the flaming sword of Excalibur (frequently and erroneously described as a winged dagger) was stencilled onto both doors.

On 15 March, Stirling set off from Siwa Oasis bound for Benghazi, 400 miles north-west. There were six men in the Blitz Buggy on bench seats front and rear, including Corporal Johnny Cooper. He remembered that the vehicle's 'suspension had been modified to cope with desert travel', and other adjustments included converting the boot into an extra petrol tank to augment its fuel capacity of 12¼ gallons.

The Blitz Buggy got the men to Benghazi, but when they attempted to assemble the folding canoe (known as a folboat) they discovered it had been



This is an early shot of David Stirling's 'Blitz Buggy', before it was fitted with a water condenser and had had the SAS insignia stencilled onto both front doors. The vehicle was a stripped-down Ford C11ADF station wagon that Stirling had discovered in a base workshop and liberated for his own purposes. 'It was well sprung and had a powerful engine, and the removal of the roof and sides had considerably increased its speed,' recalled Fitzroy Maclean. The suspension was strengthened to cope with the rigours of desert travel and an extra fuel tank was fitted in the rear compartment. (Gavin Mortimer)

irreparably damaged during the long journey from Siwa. Stirling tried again in May, and this time the Ford C11ADF's familiar failing became apparent as they drove down the smooth road that led to Benghazi. The Blitz Buggy began emitting what Stirling described as a 'high-pitched scream'. He pulled over in the dark and Johnny Cooper got out to examine the vehicle. 'During the long approach march across the desert the wheels had moved out of alignment so that one of the tyres, now on a hard, unyielding surface, created a drag,' he wrote. Nothing could be done at that moment to fix the bent track rods, so they continued into Benghazi where they parked the car in a garage. Stirling and his men set off on foot to attack enemy shipping in the harbour, while Sergeant Johnny Rose endeavoured to repair the bent track rods. Neither was successful.

Stirling should have dispensed with his Blitz Buggy after the second unsuccessful attack on Benghazi; it was a nice idea, but the vehicle was not suited to the tasks demanded of it. In the end, it was the Italian Air Force that put paid to the vehicle. En route to attack Benina aerodrome in June 1942, Stirling drove over a thermos bomb (small anti-personnel

A

BLITZ BUGGY, LIBYA 1942

In early 1942 David Stirling discovered a Ford C11ADF station wagon in a base workshop in Cairo and spotted its potential as the first step on the SAS becoming self-sufficient and no longer reliant on the LRDG for its transport. Like the LRDG trucks, the Ford C11ADF had a 3.91-litre engine, but with a lighter chassis it was capable of maximum speed of 70mph. One of its disadvantages, however, was the fragile track rods that were prone to damage in the desert terrain. Stirling named his acquisition the 'Blitz Buggy' and kitted it out with a spotlight, sun compass, brackets for sand channels and a radiator coolant expansion tank was installed. It was painted grey with a broad white stripe across the bonnet and the SAS insignia was stencilled on both doors.



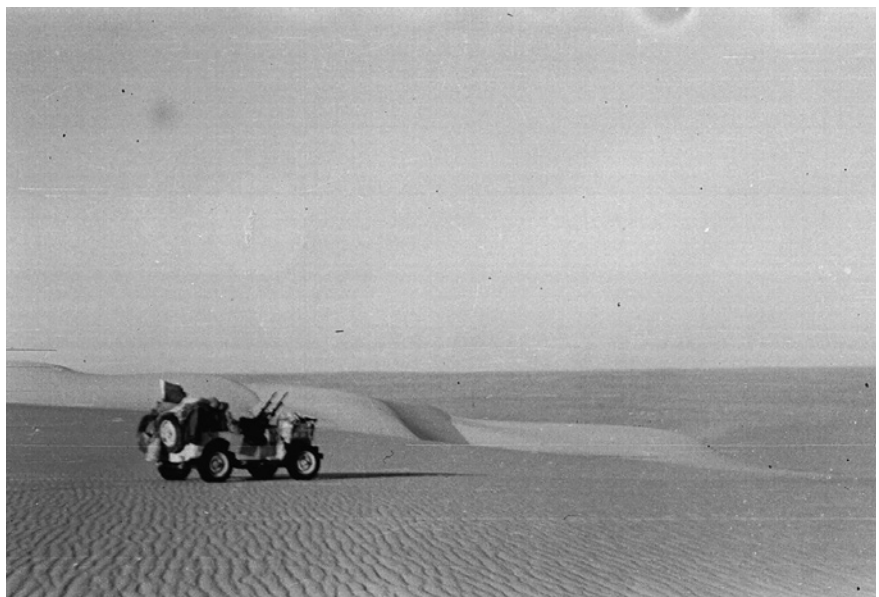
mine dropped from the air), which, remembered Cooper, 'had blown off the front wheel and messed up the front suspension'. The Ford C11ADF was repaired, but in July it was attacked by two Italian CR.42s, the agile biplanes that were deceptively menacing. Stirling had just time to yell 'abandon ship' before the buggy blew up. Its short life had been entertaining if not very effective.

SAS DESERT JEEPS

On 26 May 1942, Rommel had launched a major offensive against the Allies' left flank in alliance with the Italian X and XXI Corps. By the end of June, the Eighth Army had withdrawn east across Libya to a line between a coastal town called El Alamein and the edge of a large salt marsh called the Qattara Depression. Throughout July, fierce fighting would rage in western Egypt as the Axis troops tried to advance to Alexandria, an ambition that was thwarted and which left the Germans and Italians with a dangerously thin supply line.

One result of the Axis advance was the abandonment of Siwa Oasis by the LRDG and SAS. The latter returned to its HQ at Kabrit, 90 miles east of Cairo on the edge of the Great Bitter Lake in late June, and while the men recuperated, Stirling drove to the Egyptian capital to find a role for his unit. In the first six months of 1942 the SAS had destroyed at least 143 Axis aircraft (the figure was probably more, but Stirling erred on the side of caution when collating statistics). General Claude Auchinleck, Commander-in-Chief Middle East (and a family friend of the Stirlings) instructed Stirling, and the LRDG, to concentrate on Qaret Tartura on the north-western edge of the Qattara Depression, and from this remote base attack airfields and enemy lines of communication in the Fuka–Bagush area, approximately 55 miles west of El Alamein. According to Captain George Jellicoe, then in the SAS, it was Paddy

A jeep in splendid isolation in the Libyan desert, a region of sharp contrasts. The gravel desert was called *serir* in Arabic and the stony areas were known as *hammada*. Both, in general, were good to cross in jeeps, because the wind had removed the sand in a process called 'deflation'. At other times SAS patrols would encounter a bed of powdered clay, which enveloped them with choking, billowing clouds of white dust that were not only visible for miles around but also got into their eyes, mouth and every other nook and cranny of their bodies. (Gavin Mortimer)



Mayne who suggested 'it would be useful if a jeep could be provided to transport the elements of the Special Air Service Regiment to the scene of the operations'.

The SAS needed a vehicle that was more agile than a truck, and more robust than a Ford C11ADF station wagon, and Stirling found the ideal solution in Cairo. The Willys jeep (named after its manufacturer Willys Overland, although Ford was also involved in its manufacture) was a powerful and versatile four-wheel-drive vehicle that went into production after the American Bantam Car Company had failed to win the contract for a light utility vehicle.

Ford and Willys both submitted prototypes – the Willys Quad and the Ford Pygmy – and eventually in July 1941 the War Department chose Willys-Overland to fulfil its contract, because of its low bid (\$748.74 a unit), and its promise to meet production requirements. From the initial order of 1,500 units, another 16,000 vehicles were ordered. By October of that year Willys-Overland was struggling to keep up with demand and Ford was contracted to assist in manufacture. In total, Ford went on to produce approximately 280,000 of these vehicles.

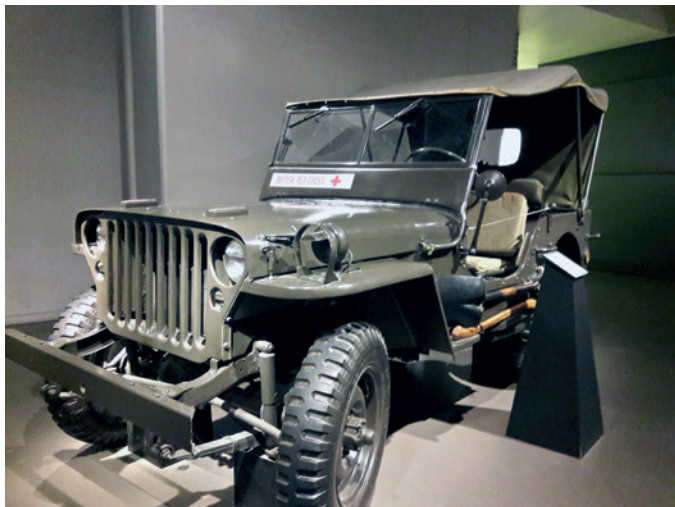
Meanwhile in May 1941 a reporter from the Washington DC *Evening Star* went for a test drive and subsequently recounted his experience: 'One of the mechanical bucking broncos was in Washington yesterday for informal inspection by War Department officials and interested members of Congress,' he explained. After the inspection he and the test driver headed to a clearing in Rock Creek Park, in the north of Washington DC, where construction workers had dumped piles of earth and in doing so imprinted heavy truck tracks in the mud. 'Hardly had we adjusted ourselves in the front seat of the mile-a-minute bug before the thing bolted toward a 4-foot drop,' wrote the reporter. He continued:



A member of B Squadron in the desert in late 1942. Judging from the equipment stashed in the rear of the vehicle this soldier was en route to resupply his SAS comrades. The Australian bush hat worn is unusual for the SAS, as is the sheet wrapped around the twin Vickers to protect it from sand and dust. In all probability he was making his way west from Cairo to join his squadron engaged in harrying the retreating Germans. (Gavin Mortimer)



Visible on the front of the bonnet of this Willys jeep are two rolled-up sand channels, indispensable to both the LRDG and the SAS in North Africa. Ralph Bagnold, the founder of the LRDG, who had explored the desert extensively in the inter-war years, hit upon the idea of using corrugated steel channel sections, 5ft long and 11in wide. 'A little valley [of sand] would be scooped out by hand from in front of each rear wheel, sloping downward to the base of each tyre,' he wrote. 'A channel section was laid in each valley, on which the wheels could bite as the car accelerated forward. This usually carried the car well beyond the front ends of the channel.' (Gavin Mortimer)



A Willys jeep in all its glory on display at the Imperial War Museum in London. The SAS removed the foldable windscreen, the front bumper and the roof. This jeep is a later model, identified as such by the headlamp mounted on the left front fender to guide the driver at night. This was another feature deemed surplus to SAS requirements. The first Willys jeeps had a welded, flat, iron-slat radiator grille, replaced in 1942 by a stamped grille, like the one shown here. (Gavin Mortimer)

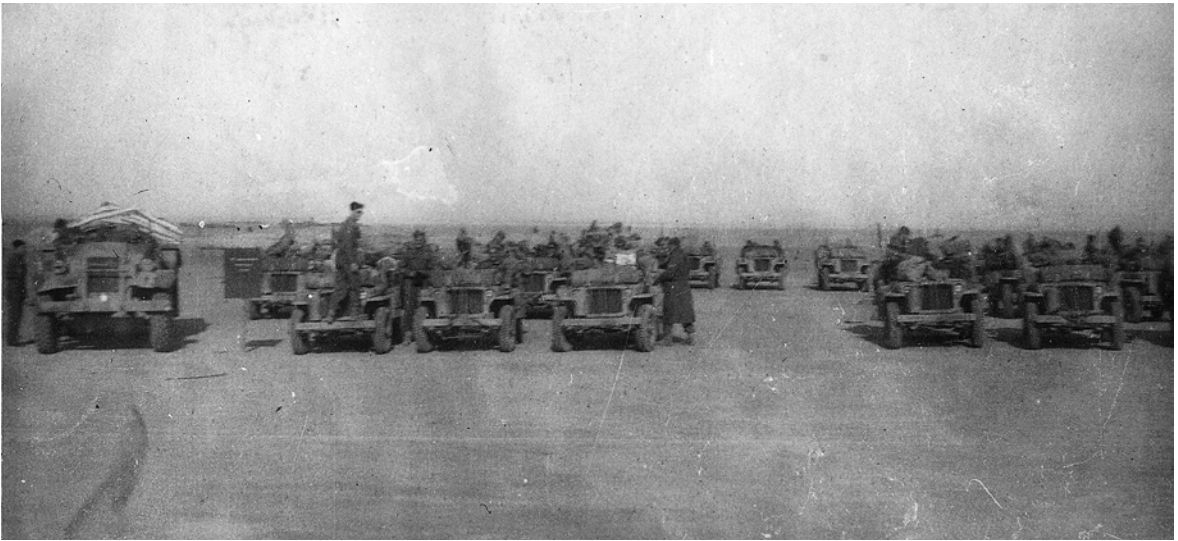
This first manoeuvre was negotiated without the loss of anything but my hat. For a moment I thought my stomach was in it. The 'jeep' bounded like a wild demon over the enlarged washboard left by truckers in the clearing and roared toward the 60 per cent angle cliff. There was a grinding noise, then that funny-tummy feeling again and we were half way up the side... with closed eyes I awaited developments. Things sort of whirled and then the ground seemed to be meeting us head on. We still had four wheels under us, however, and the 'jeep' levelled off.

It was a thrilling, if nerve-wracking, experience for the reporter, who ended his account by stating that the US Army had placed orders for 4,500 jeeps with 10,000 pending. They would be used as command or reconnaissance cars and were 'designed to carry three men and a machine gun at speeds as high as 70 miles an hour [it was actually 60mph] through mud and water and over rough terrain'.

Charles E. Sorensen, president of the Willys-Overland Motors Inc., boasted to the *Evening Star* that the jeep was the 'first completely new and original product of automotive engineering in years, and it has just as many advantages for civilians as it has for the military'. The Willys, which entered service in the American military in late 1941, had a 60hp L134 engine, nicknamed 'Go Devil', which generated 105ft-lb of torque, far more than the Bantam's 83 and Ford's 85. The Willys' wheelbase was 80in and had leaf springs and shock absorbers, a handbrake assembly at the back of the transfer case and hydraulic breaks on the wheels. On the instrument panel

Some of the original members of the SAS, including Johnny Cooper (far right), Ted Badger (driver's seat), Pat Riley (front passenger seat), Dave Kershaw (squatting by the back wheel) and Reg Seeking (kneeling by the front wheel), probably in the second half of 1942. The standard colour for the Willys Jeep was OD (olive drab) but the SAS's vehicles were painted desert-sand all over; while the LRDG painted many of its vehicles salmon pink or other elaborate colour schemes, the SAS refrained from following suit. (Gavin Mortimer)





was a speedometer registering 0–60mph, a Fahrenheit temperature gauge of 0–220, an oil pressure monitor and a map light.

The jeep was an instant success, and the US Army propaganda machine went into overdrive to publicize its virtues. The Washington *Sunday Star* published a photograph of the vehicle on the front page on April 12 1942 with the caption: ‘This is the United States Army’s new “jeep” – a smallish monster with an almost fabulous capability. As it stands here, it looks harmless and bulky, but watch it perform.’

A consignment of Willys jeeps arrived in North Africa around the same time that the *Sunday Star* was praising its performance, and David Stirling probably glimpsed one driving around Cairo. Instantly he grasped its potential and procured 15 jeeps, handing them over to the SAS fitters for modifications before their departure to Qaret Tartura.

‘Four days only were available for preparations,’ wrote Jellicoe in his operational report of the period. ‘15 jeeps had to be prepared with special equipment and guns and twenty 3-ton lorries loaded. This meant that the drivers and maintenance crews had to work, for some time, as long as 72 hours almost without a break.’

The foldable windscreen, canvas roof, side screen and the doors were removed from each jeep, as were the front grille slats to assist cooling. A water condenser was fitted to each jeep, an invention of the Light Car Patrol of World War I, and subsequently developed by the LRDG. ‘From the top of the radiator, the overflow pipe of which was blocked up, a rubber tube led into a two-gallon can bolted to the running-board and half-filled with water,’ said Bill Kennedy Shaw, the LRDG intelligence officer. ‘When the water in the radiator boiled the steam condensed in this can, and when it had ceased boiling the vacuum in the radiator would suck the water back and fill it up again. If all the joints were air-tight there would be no need to “top up” the radiator for hundreds of miles.’

In time, the LRDG also acquired some jeeps and fitted them out in a style similar to the SAS, although with just one machine gun, a front-facing single Vickers. The LRDG also opted to stash its jerrycans of fuel in the rear

This view of the SAS in 1942 in North Africa is interesting in that the jeeps have the welded flat, iron-slat radiator grille, which was the initial design by Willys. When Ford joined in the production, it introduced the stamped, slotted, steel grille. This became standard for Willys jeeps too, as they were lighter and more practical for mass production. The fashion in the LRDG and the SAS for removing all but two of the slats for better air cooling has been questioned by some post-war vehicle experts. (Gavin Mortimer)



The water condenser that was fitted to each jeep, early 1943. The condenser was invented by the Light Car Patrol in World War I, and was developed by the LRDG. (Gavin Mortimer)

of the vehicle, while the SAS stored its in racks attached to the rear internal mudguards with five more cans strapped horizontally to the bonnet.

Finally, mounts were fitted to the SAS jeeps for the twin Vickers K machine gun. According to an article in the December 2005 issue of *Mars & Minerva*, the SAS regimental journal: 'One pair [of guns] fitted on a pipe which went from the chassis, through the floor, glove box and front scuttle in front of the passenger. Another pair faced rearwards on a mount set through the floor pan and finally a single gun was mounted on the driver's wing. All had some secondary fixing to prevent wild swinging about during travel.'

Called the small general-purpose (GP) vehicle it soon became shortened in soldiers' vernacular to 'jeep', although it has also been suggested another reason for the nickname was in honour of a popular character called 'Eugene the Jeep' in the Popeye cartoon shorts who was endowed with mystical powers.

The SAS had by then expanded and one of the new recruits was Arthur Thomson, whose army career had begun in the Mechanical Transport section of the Royal Berkshire Regiment where he was a dispatch rider. 'We didn't think much of the jeeps at first, I thought it was a bloody toy, because I'd been used to driving bloody lorries,' he recalled. 'But they were so strong and versatile. We used to carry 10 or 15 hundredweight: bedding, ammo, food and water, and the twin Vickers.'

Thomson said the jeeps carried a pannier for extra equipment, including the precious 'tea-making gear'.

Sergeant Bob Bennett, one of the 'Originals' from July 1941, said it was Stirling's idea to fit the jeeps with twin Vickers Ks from the obsolete Gloster Gladiator aircraft (the biplanes were withdrawn from frontline duties in 1941, but used in the Middle East to defend Suez etc). 'They fired about 1,000 rounds a minute and by God they were formidable,' he said. 'You only had to open up and see the enemy get down. And you loaded them with one round of armour piercing, a round of tracer – to see where you were shooting – and ball. On the back of the jeeps, on some of them, they



Major Fenwick and some members of D Squadron pose with local Maquisards after a successful raid on a railway holding that netted them 17,000 cigarettes and a supply of sailors' uniforms. The 'German sailor' is an SAS soldier dressed in the spoils of war. The twin Vickers K visible in the front passenger seat could fire 1,000rpm and had been fitted in jeeps since the early days of 1942 after David Stirling wangled some from the obsolete Gloster Gladiator aircraft. (Gavin Mortimer)

had a Browning .30, a good weapon if it was working but, for me, it was a bad weapon because it had too many breakdowns.'

Initially, Stirling's intention had been to use the jeeps as a means of transporting the men to their target airfield, in much the same way as the LRDG had done with its trucks, before going in on foot. On the evening of 7/8 July, Stirling and Mayne (the first time they had raided together) made for Bagush airfield in a convoy of three vehicles: a jeep, a three-ton truck and the Blitz Buggy. Mayne led a party on foot onto the airfield, but although they destroyed 22 aircraft, an estimated 18 more were undamaged because of faulty bombs. Mayne was furious on returning to Stirling at the rendezvous. According to Virginia Cowles' book, *The Phantom Major*, Stirling suggested they 'drive on to the field and shoot up the planes from the cars'.

Manning the single Vickers in the front passenger seat of the Blitz Buggy was Johnny Cooper, who recalled what happened when they drove onto the airfield at around 15mph to find a row of intact CR42 fighters. 'David [Stirling] was encouraging us from the driving seat and we could tell from his voice that he was delighted with the new technique... there was complete confusion on the airfield, yet not a single round was fired in our direction as we recrossed the road and headed back to the south.'

Aerial reconnaissance subsequently noted 37 aircraft had been destroyed, by far the most successful raid among the half a dozen carried out in this period. The others, attempted on foot, were hindered by the presence of increased enemy defences, including sentries posted by each aircraft.

This factor, and the success of the attack at Bagush, prompted Stirling to introduce a new tactic, which he outlined in a memo:

'A "mass" attack would nullify the value of sentries on individual aircraft (the enemy's normal custom) and would necessitate perimeter defence, which past experience has

A jeep in an ambush position with the rear gunner in the ditch manning a Bren, during a 2SAS training exercise in England, August 1944. The half-moon armour plating is visible in front of the Vickers and the spare tyre is strapped to the bonnet. On active operations, the SAS tied the front wheel to the radiator and attached spare Vickers magazines to the bonnet (one of which can be seen here). The pannier at the back of the jeep is where the men kept their personal kit. (Gavin Mortimer)



shown to be comparatively easy to penetrate by “stealth” [on foot]. Thus the alternative employment of two methods of attack – either by a small party on foot reaching its objective without being observed, or by a “mass” attack in vehicles – should leave the enemy hesitating between the two methods of defence.’

For his first ‘mass’ attack, Stirling chose a hitherto untouched airfield at Sidi Haneish – approximately 30 miles east-south-east of Mersa Matruh, and around 50 miles north of their hideout – which was in regular use by Axis aircraft. Before the attack could be launched, however, Stirling needed more jeeps, so he sent a signal to Cairo before setting out to the Egyptian capital.

IMMEDIATE. Willy Bantams great success. Most urgent that twenty five exactly the same type be despatched for modification to fix mounts for twin Vickers guns and sun compass. All gun mountings must be welded, not brazed. We will require six new Ford three tonners, proportionate desert equipment to look after increased scale of operations. Withdrawing force from operations to collect Bantams and three tonners 16th [July]. We return here with smallest delay.

Stirling and his force returned to a new hideout at Bir el Quseir on 23 July. He had managed to procure only 20 jeeps, ‘all of them bristling with Vickers K guns’, while the 30cwt trucks were laden with 1,500 gallons of petrol, 30 gallons of M.220 oil, 30 gallons of C.600 oil, 300 hand grenades, 5,000 incendiary bullets and boxes of tea, sugar and powdered milk.

The next day, 24 July, Stirling briefed his men on the impending attack, which would be launched in 48 hours with 18 jeeps. In the interim, a dress rehearsal was carried out, and in the final few hours before departure, the jeeps were given a thorough once-over in the caves that pock-marked the escarpment in which they were hiding. ‘It was rather like the gold mining scene from the seven dwarfs,’ remembered Lieutenant Carol Mather. ‘There

was much hammering and singing as new wheels and tyres were fitted, the Vickers guns were stripped and cleaned, magazines loaded, engines taken down and explosives made up.’

In charge of navigating the convoy 70 miles north was Mike Sadler, whom Stirling had head-hunted from the LRDG. ‘I think Stirling got the jeeps first but hadn’t the means to navigate so that’s when he talent spotted me, if that’s the word, having seen me on early ops with the L.R.D.G.’ recalled Sadler.

Stirling’s faith in Sadler wasn’t misplaced and the young Englishman navigated the raiding party to a mile south of Sidi Haneish in four hours. The only encumbrance was four punctures, and Sadler remembered that after this raid the Mohawk tyres were replaced by another brand, though he couldn’t recall the manufacturer’s name.

A soldier posing for the camera behind a twin Vickers, in 1942. The weapon was reliably cut, but the spigot mounting on which it was fixed was less trustworthy. Major Farran of 2SAS complained after operations in France in 1944 that the spigot swivel on the twin Vickers mountings frequently snapped because the standard mounting was too heavy. He recommended: ‘A lighter, firm, strong mounting must be designed immediately. The weight of the mounting also hindered accurate firing, being balanced on such a small, weak centre point, it was top-heavy and unwieldy’ (Gavin Mortimer)



Stirling issued his final instructions:

At the edge of the aerodrome form line abreast and all guns spray the area – when I advance follow me in your two columns and on my green Very light open fire outwards at the aircraft. Follow exactly in each other's tracks 5 yards apart, speed not more 4 mph – return to the rendezvous independently moving only by night.

The operation report described how the attack unfolded:

The force then moved on cautiously at four to five miles an hour... no difficulty was encountered in crossing the aerodrome defences and the force then reformed as a column. The firing of Very lights and of tracer and incendiary ammunition having disclosed the approximate positions of the aircraft, the column was directed to the centre of the dispersal area and shot the planes up one by one, the pace, while the shooting was going on being reduced to one or two miles an hour. In this way about thirty were destroyed, though only eighteen actually burst into flames.

The cost to the SAS was one man killed, John Robson (although a second, a Frenchman named André Zirnheld, was killed by vengeful German aircraft a few hours later), and three jeeps immobilized, including Stirling's, which received a shell through the cylinder head.

Much to Stirling's disgust, the success of the raid on Sidi Haneish cut little ice with MEHQ and the SAS was immediately recalled to prepare for an 'operation [which] was of vital importance'.

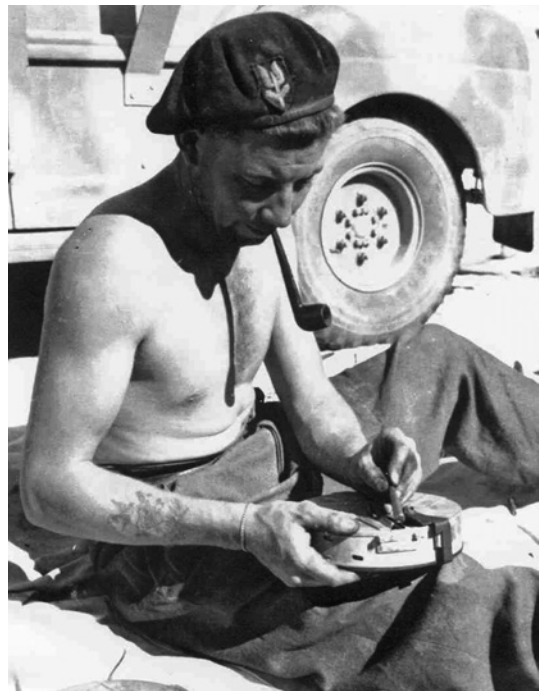
Stirling had drawn a couple of lessons from the Sidi Haneish raid. First, he considered many gunners had been too ill-disciplined in their shooting. 'Some of you were out of position, some of you were firing at planes you could only just see, and a lot of you were firing wildly,' he told them. 'You must save your ammunition for the targets you can hit for certain.'

Second, he realized how few of the men knew how to drive, a deficiency he asked Arthur Thomson to rectify at Kabrit. 'What happened if the driver got shot, and the front gunner and rear couldn't drive? The jeep came to a standstill,' explained Thomson. 'When they got back Stirling asked how many people could drive? Half of them couldn't drive... so I taught them gears, four wheel drive, in and out, changing, clutch, steering, so if bloke got shot the others could take over.'

The operation for which the SAS had been recalled was a precursor to the major offensive being planned at El Alamein by the new commander of the Eighth Army, General Field Marshal Bernard Montgomery.

The plan was for raids by special forces to be made on the ports of Tobruk and Benghazi on the night of 13/14 September to disrupt the Axis' supply chain. Stirling and a force of 200 men (and two Honey tanks) were instructed to attack Benghazi, but from the outset a sense of foreboding pervaded the operation.

The gas-operated Vickers Ks were fitted with round, top-mounted pan magazines of 100 rounds, although it was standard practice to load only 96 bullets because a full complement could damage the spring and cause problems on operations. The SAS loaded the magazine with a mixture of tracer, ball and incendiary, and with a rate of fire of approximately 1,000rpm the Vickers produced a devastating firepower. An interesting aside to this photo in North Africa is that the soldier's beret is maroon, a colour that wasn't introduced until 1944 as a (short-lived) replacement for the traditional sand colour. (Gavin Mortimer)



The full complement of SAS weaponry: a .30 Browning, a single Vickers and a twin Vickers at the rear. The Vickers were a favourite of the soldiers, but some found the Browning less reliable. The SAS stored the jerrycans of petrol in racks attached to the rear internal mudguards with five more cans strapped horizontally to the bonnet, whereas the LRDG kept its jerrycans of fuel in the rear of the vehicle. (Gavin Mortimer)



The raiders never even penetrated Benghazi. Instead they were ambushed on the outskirts, forcing them into a humiliating retreat south across the desert as Axis aircraft hounded them. 'We lost about 15 jeeps and 25 trucks,' remembered one of the officers, Stephen Hastings. 'There were up to 30 men on each 3-tonner and 5 or 6 on each jeep.'

That the operation should have ended in tragic failure was not a surprise to Stirling. It was a misuse of men and jeeps, which together, could hit the enemy hard in lightning raids, as they had demonstrated at Sidi Haneish, but not as a large raiding force.

Fortunately, MEHQ realized the error of the Benghazi raid. Promoted to lieutenant-colonel, Stirling was authorized to expand his unit to regimental status, 1 Special Air Service, comprising 29 officers and 572 other ranks.

Paddy Mayne swiftly led A Squadron west, and for nearly a month harassed Axis forces between Tobruk and Matruh, cutting railways lines and ambushing vehicle convoys prior to the start of the Eighth Army offensive at El Alamein. On one occasion, recalled Arthur Thomson, a patrol of three jeeps descended on a similar number of Italian caravans. 'We got on the road, caught them up, one went one side, another the other and the third jeep waited at the back,' said Thomson. 'We raked them with machine gun fire and chucked grenades in the open doors of the caravans. But it wasn't officers, it was a travelling brothel with four women in each one.'

THE ITALIAN JOB, 1943

David Stirling was captured in January 1943 by a company of elite Luftwaffe paratroopers. One of them, Sergeant Heinrich Fugner, recalled that, having bagged an SAS jeep, they transferred many of its features on to their own Kubelwagen. 'We copied the cooling system for the engine and also the brackets for the fuel and water cans and put our MG42s on them,' said

Fugner. 'After all they had a lot more desert experience than we had and probably knew what they were doing.'

Five months after Stirling's capture, the war in North Africa ended with the defeat of the Axis forces, by which time there had been fundamental changes to the SAS. The regiment's four squadrons had been broken up, with two turned into French squadrons and returned to Britain for further training, one converted into the Special Boat Squadron (SBS) and the fourth – under the command of Paddy Mayne – redesignated as the Special Raiding Squadron (SRS).

Sent for training in Palestine as an amphibious force, the SRS was parted from its jeeps and wouldn't be reacquainted with them until 1944. However, as 1SAS was being dismantled, a second SAS regiment was formed under the leadership of Lieutenant-Colonel Bill Stirling, the elder brother of David. More respectful of senior officers than his more impetuous sibling, Bill Stirling was nonetheless well capable of fighting his corner. On 1 July he wrote to Headquarters 15th Army Group to outline his view of how his men should be deployed strategically during the invasion of Italy. '2nd S.A.S. Regiment expects to operate in such numbers as are most suitable for the task in hand, and is specially trained to gain access by any means available.'

One of those means was by parachute with five parties (13 men in total) dropping in the north of Italy, south of Bologna, in early September to sabotage rail communications. Between them they derailed six trains, an impressive feat, but so much more could have been achieved if HQ had listened to Stirling and deployed dozens more raiding parties.

Where 2SAS did arrive en masse was in Taranto on 10 September, four squadrons disembarking with the Airborne Division at dusk. To each was allotted a task and for the purpose of simplification we shall concentrate on D Squadron, commanded by Captain Roy Farran.

An experienced combat officer, who joined 2SAS from the Royal Armoured Corps in early 1943, Farran was delighted to take possession of a Willys jeep



David Stirling standing beside a B Squadron patrol in late 1942, a few weeks before he was captured in Tunis. The SAS, like the LRDG, usually wore Arab headdresses only for publicity purposes, to conform to the romantic image perpetuated by the press. In reality on patrol the men wore their cap comforters. 'The headdress was good in a sandstorm or as a dishcloth-' said one LRDG veteran. 'But most of us wore the cap comforter, which looked like a short scarf but could be worn as a woollen hat.' (Gavin Mortimer)

A jeep belonging to 2SAS in Italy, 1945. Note that the stamped slotted steel grille is intact. This may be because it was 1SAS, which contained most of the desert veterans, which continued the habit of removing all but two of the slats, even when it was in Europe. Note the rope attached from the front left fender to the barrel of the single Vickers next to the driver. The SAS complained that the spigot swivel on the Vickers mountings frequently snapped and that the weight of the mounting also hindered accurate firing, being balanced on such a small, weak centre point. (Gavin Mortimer)



after fighting the North African campaign in a 'Light' Cruiser Mk1 tank, which he described in his memoirs as an 'ancient hulk'. Of the jeep, he wrote: '[It] had a tremendous load-carrying capacity, an enormous range when fitted with extra petrol tanks, a fine cross-country performance, and great fire-power.'

Farran would also come to appreciate the four-wheeled drive jeep's agility, derived from its lightweight steel chassis and its three forward gears of increasing speed with one in reverse.

Farran was ordered to lead his squadron north in the direction of Massafra, and he did so with the jeeps deployed on both sides of the wide tree-lined avenue. 'Only the faint throb of the jeep engines could be heard in the silence of the night,' recalled Farran.

The first contact with the Germans occurred the next day near a village called Ginosa and the jeeps proved their worth. Spotting the approach of a large motorized column of Germans, D Squadron backed its jeeps between some trees and waited. On Farran's signal they opened fire 'at the trucks at practically nil range [and] having once started such a colossal barrage of fire it was very difficult to stop it in spite of the fact that the Germans were waving pathetic white flags from their bonnets'.

The jeeps were ideally suited to the role demanded of Farran by the Airborne Division. Patrolling well in advance of the division, the SAS reconnoitred the perimeter of the German position. There was the odd contact, including the destruction of a motorcycle and truck while the jeeps were moving at speed, what Farran called 'quite a credible feat'.

He was equally impressed with the vehicles' agility, remarking on 'how well our heavily-laden jeeps travelled even over the most mountainous goat tracks'. This nimbleness did have its drawbacks, however, as D Squadron strayed 80 miles ahead of the advance elements of the Airborne Division.

On 18 September, Lieutenant Jim Mackie was ambushed by the Germans and safely withdrew his men, although they lost two of their jeeps.

That was a rare setback, and 2SAS had its revenge six days later in an attack that again showcased the strengths of its vehicles. On nearing the town of Melfi, 100 miles east of Naples, one of Farran's men spotted some Germans in the early stages of preparing an ambush. 'I waved the last two jeeps on to a ploughed field on the right, ordering them to try to appear from an unexpected direction to a flank,' said Farran. What happened next was recorded dryly by Farran in his operational report: 'Got jeeps in fire position and pasted German positions for 30 minutes at 150 yards range.'

D Squadron continued to have sporadic engagements with the Germans until it was withdrawn on 28 September and ordered east to Termoli to help Paddy Mayne's SRS in defence of the port. Its role in the invasion of Italy had been brief, but 2SAS in its jeeps had given the Germans a taste of what to expect the following year in France.

SPROUTING WINGS: JEEPS IN FRANCE, 1944

In February 1944 Brigadier Rory McLeod was appointed commander of the SAS Brigade. He had under his command 1SAS (now reconverted from the SRS); 2SAS, 3SAS and 4SAS (both French regiments) and the Independent Belgian Company. In total, including HQ and liaison staff, the brigade numbered 2,500, of which all but 500 were operational. Each of the four regiments was composed of approximately 500 men, split into four squadrons: A, B, C and D, and they did their training in Scotland at separate locations.

Significantly, the new recruits – of which there were many – were not introduced to the jeep during their training in Scotland. They were taught how to blow railway lines, some were even instructed in how to drive a steam engine in the event that they might need to shunt one down the line; how to navigate on foot across remote countryside; the art of fieldcraft and they were also schooled in a variety of weapons, including the 3in mortar.

During this training a fierce disagreement erupted about whether the SAS Brigade should be deployed strategically or tactically during the Normandy invasion, the upshot of which was the departure of Bill Stirling as 2SAS's CO. Fortunately, his successor, Lieutenant-Colonel Brian Franks, proved an outstanding replacement.

On 18 May, Supreme Headquarters Allied Expeditionary Force (SHAEF) issued a memo entitled 'Revised SAS Planning' in which it outlined the role of the SAS Brigade in the imminent invasion. The advance parties of 1SAS were to parachute into the Massif du Morvan, and the Indre Department, west of Châteauroux, remote regions in central France hundreds of miles south of the landing beaches. (The French SAS's area of operations in June was Brittany, and while it was very effective, we shall focus on the two British regiments.)

Once the advance parties had contacted the local Maquis and established bases, the rest of the squadron would insert by parachute and 'their functions will be to establish safe base areas from which enemy communications can be attacked. SAS will thus provide resistance with a core of disciplined troops and will be able to undertake operational tasks beyond resistance capabilities'.

There was, at this stage, no mention of using jeeps for operational tasks in Occupied France. It wasn't until a memo on 18 June from the SAS Brigade to 21 Army Group detailing the progress thus far, that the word appeared. By this stage, the two initial 1SAS Operations – *Houndsworth* in the Massif du Morvan and *Bulbasket* in the Indre region – were well under way and most of the men had inserted. Their reports back to HQ stated: 'The possibility of jeep patrols: to add mobility to operational parties, to dispose quickly of containers on arrival, to aid harassing parties and to obtain information.'

Bulbasket was scheduled to take its first delivery of jeeps on 16 June, but in fact it wasn't until two days later that four jeeps were dropped from Halifax bombers. The vehicles were inside elaborate protective cradles, positioned on a sub-frame with attachment points for steel suspension cables by each wheel. In his book, *Fire from the Forest*, Roger Ford describes the intricate way that the jeeps were packed inside the cradles. 'These cables were attached in pairs to a traverse beam from which the whole ensemble was suspended from the longitudinal beam in the aircraft's bomb bay, and

This photograph was taken in June shortly after the arrival of A Squadron, 1SAS, in the Morvan at the commencement of Operation *Houndsworth*. Until the jeeps arrived by parachute in early July, the SAS had to rely on the local Maquis for its transport, usually trucks or buses called *gazogène*. With petrol a rare commodity, these vehicles were fuelled by a metre-high gas cylinder to the rear that ran on wood. (Gavin Mortimer)



which also provided an attachment point for a single cable, ten feet long, to which the parachute lines were in turn secured. The link was broken and the parachutes released by means of a small explosive device actuated on landing by impact.'

Before being loaded into the cradles, the jeeps had their windscreens folded, and the guns and steering wheels stashed safely inside the vehicles. The petrol, gun mountings, tools and spare wheels were delivered from the air in 14 cylindrical containers.

Initially, eight standard 28ft parachutes were attached to each cradle, but it was soon found that the safer and more effective way was four 60ft parachutes. The men on operation *Bulbasket* had prepared for the arrival of their transport by digging four pits close to the Drop Zone (DZ), in which the cradles were buried once the jeeps had been swiftly assembled.

Nonetheless, there were still many cases of jeeps 'roman-candling' on the end of parachutes that failed to deploy properly. This was particularly prevalent during the three months of Operation *Houndsworth* (the longest and most successful 1SAS mission of 1944), as its CO, Major Bill Fraser, remarked in his post-operational report:

We had bad luck with jeeps and believe that seven 'pranged'. It is difficult to say why as they were completely wrecked. But in all cases the 'chutes developed, then flash, the jeep would come down and the 'chute go off on its own. Aircraft always made a fast run in with jeeps, so [I] believe the strain on couplings holding the frame to the cable was too much when the 'chutes developed. Often jeeps landed successfully with only half the parachute attached.

B

JEEP DROPPED BY PARACHUTE, FRANCE 1944

Jeeps were parachuted to the SAS operating in occupied France from the middle of June 1944 onwards. Initially, eight standard parachutes (28ft) were attached to each cradle but these were soon supplanted by four 60ft parachutes. The protective cradles in which the jeeps were stored had a sub-frame with attachment points for steel suspension cables on each wheel. The cradles were suspended from the longitudinal beam in the aircraft's bomb bay, and there was an attachment point for a 10ft cable, to which the parachute lines were secured. The jeep's weapons and steering wheel were packed inside the vehicle, while petrol, gun mountings, tools and spare wheels were dropped in cylindrical containers.



A despondent Captain Ian Wellsted (centre) surveys a wrecked jeep after its parachute failed to deploy properly on Operation *Houndsworth*. In total, seven jeeps were 'pranged' in such a manner, a severe blow for Major Bill Fraser and A Squadron. Initially, eight 28ft parachutes were attached to each cradle, inside which was a jeep, but it was soon found that the safer and more effective way was to use four 60ft parachutes. Unfortunately, it wasn't a fail-safe method but, nonetheless, the ability to insert jeeps enabled the SAS to expand the scope of its operations in France considerably. (Gavin Mortimer)



Nevertheless, despite the seven 'pranged' jeeps, the vehicles that were dropped intact enabled Fraser and A Squadron to achieve some notable successes during Operation *Houndsworth*. Tragically, the same wasn't true of *Bulbasket*, which was overrun by the Germans on 3 July, resulting in the capture and execution of all but seven members of B Squadron.

The remote region of the Morvan is roughly twice the size of the Lake District and a third of its terrain is forested. In 1944 it had a small single-track railway line and no main road capable of withstanding heavy armour. Most of the roads that wound through the rolling countryside were narrow and ideal for the hit-and-run guerrilla warfare that the SAS launched on the unsuspecting Germans that summer.

Bad weather prevented the delivery of any jeeps to A Squadron until 5 July. Three landed in one piece and one was driven by Captain John Wiseman and five men 70 miles west to the woods overlooking Dijon, from where they carried out an audacious five-week surveillance operation on the German garrison, transmitting targets to the RAF over the wireless.

On 10 July Captain Alex Muirhead and his mortar crew drove 25 miles south to bomb the shale oil refinery on the outskirts of Autun. Two days later, another party drove 60 miles to the south-west to blow an important stretch of railway transporting German men and munitions north towards

The survivors of the ill-fated Operation *Bulbasket* cut an airstrip for the aircraft that would arrive to evacuate them home from the Indre Department, August 1944. The strip had to be 1,000 metres in length and necessitated the removal of several hedgerows and a walnut tree, which the farmer only agreed to sacrifice in return for the equivalent of £40. Luckily the men of B Squadron 1 SAS had a jeep with which to pull a rudimentary harrow. As far as is known, this is the only instance of a Willys jeep being used for agricultural purposes in World War II. (Christian Richard)



Normandy. These attacks set the pattern for the next two months, during which time A Squadron killed or wounded 220 Germans, blew 22 railway lines, derailed six trains, shot up 64 motorized vehicles and twice caused considerable damage to the refinery at Autun.

The second attack on the shale oil refinery occurred on the night of 10/11 August and it was a powerful demonstration of how the jeep enabled the SAS to cause the enemy far more damage than if it had been operating on foot.

Thirteen men in two jeeps arrived within range of the target at 0100hrs. Captain Muirhead and his mortar team assembled their weapon and as the first round left the barrel, the two jeeps roared towards the refinery. 'Lt Grayson with the jeeps swept down the road towards the factory,' wrote Muirhead in his report of the attack. His report continued:

Finding the fields impracticable [they] took up positions on the road. By this time mortar bombs were plumping most satisfactorily into the factory area at the range of 700 yards... then with a roar the 7 Vickers Ks opened up at 200 yards spraying the whole area with tracer and incendiary. Each gun pouring two full pans into the rising steam... then there was a shrill whistle and the jeeps came roaring back. Captain Wellsted and Lt Dubroy, who had planted bombs, were collected from the shaft. Cpl Sylvester who had covered the rear was picked up at his post. Within 25 minutes of the first bomb being fired the whole column was racing back to the hills. Before dawn had broken the whole force was back in camp, and sleeping in the shelter of their parachute tents.

The gas-operated Vickers Ks were fitted with round, top-mounted pan magazines of 100 rounds, although it was standard practice to load only 96 bullets, because a full complement could damage the spring. As in the desert, the SAS fed the magazine with a mix of tracer, ball and incendiary. While the weapon itself was a reliable companion of the SAS, the spigot mounting on which it was fixed was less trustworthy and several snapped on operations.

Major Roy Farran, 2SAS, assessed the Vickers as follows in his report of operations in France: 'The twin Vickers gun will cut a truck in half at under 50 yards, but at greater ranges is too inaccurate.' It varied according to personal preference and practicability, but most jeeps had a twin Vickers K mounted for the front passenger, a single Vickers for the driver and a single or twin in the rear. This heavy armament saved the lives of Sergeants Fred 'Chalky' White and Cornelius McGinn on the morning of 20 July when they encountered a couple of Germans on foot in the middle of a quiet country road. 'They apparently did not at first realise that we were British and gave us a signal to stop,' wrote McGinn in his report of the incident during Operation *Houndsworth*. 'Sgt White replied with a short burst from the twin Vickers MG in the front of the jeep, which caused them to take cover. We



James McDiarmid, centre, wearing an Arab headdress, in late 1942. Although the Vickers K is covered to protect it from the sand (the same reason McDiarmid has his headdress), its handle is visible. This is a single spade grip at the rear of the receiver with a trigger to control fire, and in this respect the Vickers K differed from the Vickers GO No.2 Mk.1 Land Service gun, which was fitted with a pistol grip with the trigger below the receiver. The Vickers K had top-mounted flat pan magazines with a capacity of 100 rounds, although usually only 96 or 97 rounds were loaded to ensure a more reliable feed. (Gavin Mortimer)

The roadside memorial to Roy Bradford and Bill Devine, who were killed during Operation *Houndsworth* (A Squadron's only two fatalities) as they tried to shoot their way past a German convoy. That three men escaped is testament to the durability of the jeep that withstood a hail of enemy fire and still managed to drive on for a mile before the engine died. Devine was a fitter (mechanic) who had parachuted into France a few days earlier and had already impressed with his hard work and mechanical savoir-faire. (Gavin Mortimer)



carried on for about 15 yards when we spotted a stationary German truck filled with troops, which was fired on in like manner.'

It wasn't just one stationary German truck, however, it was an entire convoy, with the soldiers having their breakfast on either side of the road. 'It was too late to turn back, so we decided to shoot our way through,' wrote McGinn. 'It seemed a hopeless situation but we had to carry on.'

On the twin Vickers in the jeep's rear was Bill Devine, who was shot dead as he pumped rounds into the enemy, and moments later the driver, Captain Roy Bradford, was fatally wounded by a burst of gunfire from the last truck in the German convoy that also wounded White and damaged the engine. McGinn, in the front seat, managed to lean across his dead officer and drive the jeep round the bend and down the road for a few hundred yards before the engine gave up.

McGinn leapt out and helped White and a wounded French Maquisard into the woods, reaching the trees before the Germans appeared. Lacking the courage of their adversary, the Germans decided against risking their lives in pursuit of the survivors.

A fortnight later Major Ian Fenwick of D Squadron (commanding Operation *Gain*) was killed as he drove into the village of Chambon-la-

C

OPERATION HOUNDSWORTH, FRANCE 1944

This was the incident when an SAS jeep driven by Captain Roy Bradford encountered a German convoy parked on the side of a country road with dozens of soldiers lounging on the grass having breakfast. In the ensuing firefight, Bradford and Bill Devine, the rear gunner, were killed, and Chalky White and a French Maquisard were wounded. Devine was a fitter (mechanic), who had parachuted into France nine days earlier with another fitter in order to maintain and repair the jeeps. The driver of the jeep, Cornelius McGinn, wrote in his report on the incident: 'We carried on as fast as possible but owing to the unsound condition of the jeep engine [struck by a bullet] we could not do more than about 30mph... we were just out of sight of the last truck when the jeep "packed in".' McGinn, the only member of the SAS patrol to come through the hail of gunfire unscathed, was able to help his wounded comrades escape into the forest. In France 1944, the SAS jeeps' serial numbers all started with the letter 'M' followed by a seven-digit number, the first digit always a '5'.





Ian Fenwick at the wheel of his jeep, in the Forest of Orleans in the first week of August 1944. Alongside him is Bill Duffy, while Frank Dunkley is believed to be the man behind the rear twin Vickers. Both were with Fenwick on 7 August when they were ambushed by the Germans at Chambon-la-Forêt. While both survived the crash with wounds, Duffy subsequently escaped from hospital but Dunkley did not. It is not known if he was executed, as were many captured SAS in 1944, or if he died from his injuries. (Arnaud Blond, curator at the Museum of Resistance and Deportation in Lorris)

Forêt on the edge of the Forest of Orleans. Ignoring a warning from a woman fleeing the village, Fenwick was shot dead as he approached a crossroads by a German machine gunner, who had been alerted to the speeding enemy vehicle by a Storch reconnaissance plane. Three other men were killed with Fenwick, including Sergeant Frank Dunkley, who just days earlier had posed with Fenwick for a photo in their forest camp. It was a posed action shot: Fenwick at the wheel of their jeep and with a single Vickers at his side, Bill Duffy grinning behind the twin Vickers in the front passenger seat and Dunkley with a twin Vickers in the back of the vehicle. Visible in the photograph are four Vickers K magazines, which were clipped to the bonnet. This was a recent innovation and in total there were clips for five magazines.

The death of Fenwick (a society figure who was best friends with David Niven, the actor, and who was a celebrated cartoonist with a new collection recently published) shocked the SAS and was probably the catalyst for another innovation that was rapidly

introduced to all jeeps parachuted into France. This was armour plating, which was fitted to all SAS jeeps, and which is visible in the photographs taken by soldiers in France from late August onwards. Both the driver and front passenger were protected by a rectangular armour plate or gun shield and the driver also had an armoured windshield. Some front gunners removed the armoured gun shield, because they found it impeded their ability to bring their twin Vickers to bear effectively. An armoured plate was also fitted in front of the battery and the rear gunner had the option of an armoured plate in front of his Vickers too.

On 5 September, the bulk of A Squadron departed the Morvan for England and C Squadron took over its duties. By now the majority of the Germans had withdrawn beyond the region en route to the Fatherland, and Major Tony Marsh, C Squadron's CO, sent out long-range patrols with instructions to cause maximum discomfort to the retreating Germans.

Among the men was Alec Borrie, nicknamed 'Boy', on account of the fact he had just turned 20. He had volunteered for 1SAS six months earlier, shortly after it had returned from the Mediterranean, and it wasn't until C Squadron moved from its training base in Darvel, Scotland, to Fairford in Gloucestershire in the early summer that he became acquainted with the jeep. 'In true army tradition, after all the long distances covered in training with a heavy backpack to toughen us up, we were told to collect brand new jeeps,' he recalled.

Neither he nor most of the new recruits to C Squadron could drive, but an exception was an older man called Joe Craig, who had been a long-distance lorry driver before the war. '[He] took one of the jeeps and myself into a nearby large field and showed me how to engage first gear and use the brakes, then left me to drive around for about an hour,' said Borrie. 'He came back and showed me how and when to change up a gear and down again; at the end of three days I was considered good enough to drive on the roads around the camp.'



Members of D Squadron, 1 SAS, in late August 1944 as Operation *Gain* draws to a close with the arrival of the US 3rd Army. A few weeks earlier they had lost their CO, Major Ian Fenwick, who might have survived his injuries, had his jeep sported the same armour plating visible on this jeep. Lieutenant Jimmy Watson (left) and Captain Cecil Riding (right) are the two officers either side of the driver. The Union flag was flown for the benefit of Americans, who were often unaware that there were British special forces ahead of them as they advanced east. (Museum of Resistance and Deportation in Lorris)

Borrie remembered when the jeeps were taken away in August for modifications, and returned with their armour plating. 'In addition to this,' he said, 'an extra three 12 gallon petrol tanks were fitted, two self-sealing ones behind the driver and passenger seats, the other one under the passenger seat, [and] this made a total of 48 gallons of fuel that could be carried.'

Not long after arriving in France, Borrie had his first contact with the enemy when his three-jeep patrol ambushed a convoy of German trucks. Borrie recounted:

We were on a bend where a rough gravel track led up towards some woods. What we didn't know was that the convoy had an armoured escort. So the next thing it all went off, this heavy machine gun's knocking great lumps out of the trees around us. Roy Close (the patrol leader) yelled 'back up the track'. But the jeeps were stacked one behind each other so it wasn't easy. One ended up in a ditch because its driver, Joe Craig, got a bullet through his hand, and another, Close's, got stuck over a log with its wheels spinning. I was driving the third jeep. We managed to free the log and the two jeeps sped off leaving the third behind.



One of the prettier SAS jeeps. The flowers that adorn the vehicle of Lieutenant Roy Close, centre, were a gift from the villagers of Chatillon-en-Bazois in September 1944. They assumed that the 1 SAS patrol was the vanguard of a large liberating force, but in fact Close was returning to his base in the Morvan, having ambushed a German convoy. That is the reason for his rather anxious expression. In contrast, the little boy to Close's right is evidently in awe of the SAS jeep. (Gavin Mortimer)

The crossroads at the village of Chambon-la-Forêt where Major Ian Fenwick and three of his men met their death on 7 August 1944 during Operation *Gain*. The memorial stone on the far left marks the spot where the jeep crashed after Fenwick had been shot dead at the wheel by a German machine-gun position, which was situated approximately where the row of terraced cottages now stands. Fenwick's death hastened the installation of armour plating on jeeps to protect the driver and front passenger; by the end of the month they were in place. (Gavin Mortimer)



The addition of the armour-plating to the jeeps did, unfortunately, have tragic consequences for Major Bob Melot, an extraordinary man who had been with the SAS since 1942. A Belgian, and a veteran of World War I, the 49-year-old Melot served as the 1SAS intelligence officer and with his sergeant, Duncan Ridler, had done invaluable work in August liaising between the Maquis and the SAS in and around the Morvan. By late October B and C Squadrons were in Brussels and Melot had decided to borrow a jeep to visit his mother. He had driven one on numerous occasions, so what made him lose control on this occasion was never discovered. 'Bob ran the jeep off the road and hit his head on the armour plating that had been installed on the front,' said Ridler. Melot died at the scene and was buried by the SAS with full military honours a few days later.

2SAS didn't arrive in France until the end of July, just as General Patton's Third Army made the decisive breakout of the Normandy campaign. As a consequence, by the time Major Roy Farran received orders to load his jeeps into a fleet of Horsa gliders on 17 August, the situation in northern France was fluid and unpredictable. Having struggled to manoeuvre the jeeps

This photo, taken in late August or early September 1944, shows two jeeps belonging to C Squadron 1SAS in the Morvan region during Operation *Kipling*. The recent modifications to the SAS jeeps, the armour plating and half-moon windscreens, can be seen. The jeep on the left has dispensed with the armour plating on the twin Vickers K, a personal choice of Sergeant James McDiarmid, the soldier on the far left. McDiarmid joined the SAS in 1942 and won a Military Medal in 1943. Note that the driver of the jeep on the right hasn't fitted a single Vickers to the mounting. (Gavin Mortimer)



inside the gliders, Farran and his men had to promptly unload them when they received word their operation had been cancelled.

Instead, Farran was ordered to load the vehicles into some Dakotas for a flight to Rennes. Arriving on 19 August, Farran led his squadron towards the Plateau de Langres, a region of France between the Morvan to the west and the Vosges in the east, to commence Operation *Wallace*.

By the time the operation was wound up on 17 September with the arrival of the Americans, Farran and his men had accounted for 500 enemy killed or wounded, 23 staff cars, six motorcycles and 36 miscellaneous vehicles, and in addition a dump of 100,000 gallons of petrol was destroyed.

Wallace was a triumph because its timing was opportune, Farran and his men arriving in the area in 20 jeeps as the Germans withdrew towards their homeland, but it was also because he understood possibly better than any other SAS officer how to get the best out of the jeeps. This was undoubtedly because of his experience as a tank commander, and his genuine passion for the jeep, which shone through in his post-operational report. Whereas most of Farran's peers praised the jeep in passing, he devoted three pages to describe its pros and cons, and to give some recommendations for its future deployment.

'It has been proved again that jeeping is not only possible but easy when the enemy front is unstable,' he wrote, drawing on his experience of jeeping in Italy a year earlier. 'As soon as the front becomes firm, however, jeeping becomes difficult.'

Tragically, Farran's observation was borne out at the very moment he made it, approximately 60 miles north-west of Operation *Wallace*. Operation *Loyton*, on the 12th August, involved parachuting a 2SAS advance party, under the command of Captain Henry Druce, into the rugged, forested terrain of the Vosges.

The regiment had been ordered to harry the Germans as they continued their withdrawal across the French border. Unfortunately, the advance of Patton's Third Army ground to a halt on the last day of August. So, as the Germans dug new defensive positions 15 miles west of the 2SAS base, 5,000 troops were instructed to hunt down and destroy the men of *Loyton*. Thirty-one were killed, most of them executed after capture, and although the SAS launched a couple of minor jeep attacks, *Loyton* was a costly failure.

Nonetheless, overall, in the summer of 1944 the SAS Brigade proved how effective it could be if deployed strategically and, crucially, with adequate planning and preparation. In total, it was estimated to have killed 7,733 German soldiers, destroyed seven trains, 89 wagons, 29 locomotives and 740 motorized vehicles. An additional 33 trains were derailed and railway lines were cut on 164 occasions, while the SAS provided the RAF with 400 targets for air strikes and trained and organized numerous Maquis groups into a competent force.



Willys jeeps came with mounting holes for headlight guards, but this accessory was rarely used, as was the case with the small green canvas headlight covers issued to every jeep to conceal reflection of the mirrored glass headlamps. Here the spotlight that was fitted to the front twin Vickers in 1944 can be seen, which proved unpopular. Also of interest is the spare wheel strapped to the radiator. Behind the wheel is Mike Sadler, and Paddy Mayne, with his distinctive beige beret, is believed to be the passenger. The lack of armour plating suggests that this was taken in the Morvan in early August. (Gavin Mortimer)

The village of Meux in the Morvan in the late summer of 1944, after the last of the Germans had withdrawn east towards their homeland. Notice that the jeep has had all but two of its grille slats removed, a modification first carried out in the desert in order to improve air cooling. Some veterans have said that it was also done to facilitate quicker access to the radiator if damaged. The SAS continued the practice after its return to Europe with some suggestions that slats were removed to save weight. (Gavin Mortimer)



INTO GERMANY

Major Roy Farran returned from France with mixed feelings about the jeeps' performance in Operation *Wallace*. 'The best tactical team is two jeeps but a troop of three jeeps means that there is always one vehicle in reserve in the event of a breakdown,' he wrote in his operation report. 'A trailer containing a 3in mortar is valuable to a squadron, but the strain on the jeep's clutch over bad country makes more trailers inadvisable. In any case, in view of the tremendous weights carried on D.Z's, spare clutches must be taken.'

The trailers that Farran mentioned, were two-wheel general-purpose carriers designed to carry a load of 500lb. Farran used his – or at least one of the trailers – for his 3in mortar, whereas more regular units in World War II stashed food, fuel, medical supplies, ammunition and clothing in theirs.

On a DZ, however, the weight of equipment stored swiftly in the trailers often exceeded the 500lb maximum. There was little the SAS could do in such circumstances, given the urgent necessity to transfer the arms and ammunition, rations and clothing from the parachute containers to the trailers before the Germans arrived on the scene. The clutches would have to be sacrificed for the sake of expediency – no great hardship, provided they had a supply of spares and fitters who knew how to replace them.

Initially, the Willys trailers had a two-piece axle (in reality this was two tubes joined in the middle by a heavy cast coupler), but later in the war the axle was made of a single tube welded in the centre.

The trailers had the same blackout lights as the jeep, but the former came with its own light switch on the front passenger side box frame. This meant that if the driver of the jeep flicked between normal and blackout lights on his vehicle, it would not affect the trailer's lights.

Another innovation was that the trailer was amphibious, and if need be its 500lb of equipment could be rafted across a river with soldiers alongside, or it could be roped over, safe in the knowledge that the contents would not be spoiled by water; this was because of two drain valves, one in the front and one in the rear of the floor.

Other noteworthy features of the trailers were the heavy-duty shock absorbers, a canvas tarpaulin, which fastened to hooks welded to the body to cover the trailer top, four reflectors, similar wheel rims to the jeep, a solid rear panel and instead of a tailgate, two safety chains to attach to the jeep's eyebolts and folding landing legs that enabled the trailer to stand separately from the jeep.

Although Farran considered trailers 'inadvisable' for the SAS jeeps in light of their offensive deployment, he did suggest attaching 'big iron racks' on the back of jeeps for carrying personal kit.

That was one of six recommendations outlined by Farran in his report on operations in France. The others were:

1. The rear mounting should be on the back of the jeep in the centre.
2. So many air locks were experienced in the pipes from long range tanks that it is thought that it would be better to carry three jerrycans on each side. This would also eliminate the total wastage of petrol if a tank is hit.
3. The clips for Vickers magazines must be secured more firmly.
4. The spigot swivel on the Twin-Vickers mountings frequently snapped. This was due to the standard mounting being too heavy. A lighter, firm, strong mounting must be designed immediately. The weight of the mounting also hindered accurate firing, being balanced on such a small, weak centre point, it was top-heavy and unwieldy.
5. The following modifications were unnecessary:
Spotlights
Smoke dischargers.

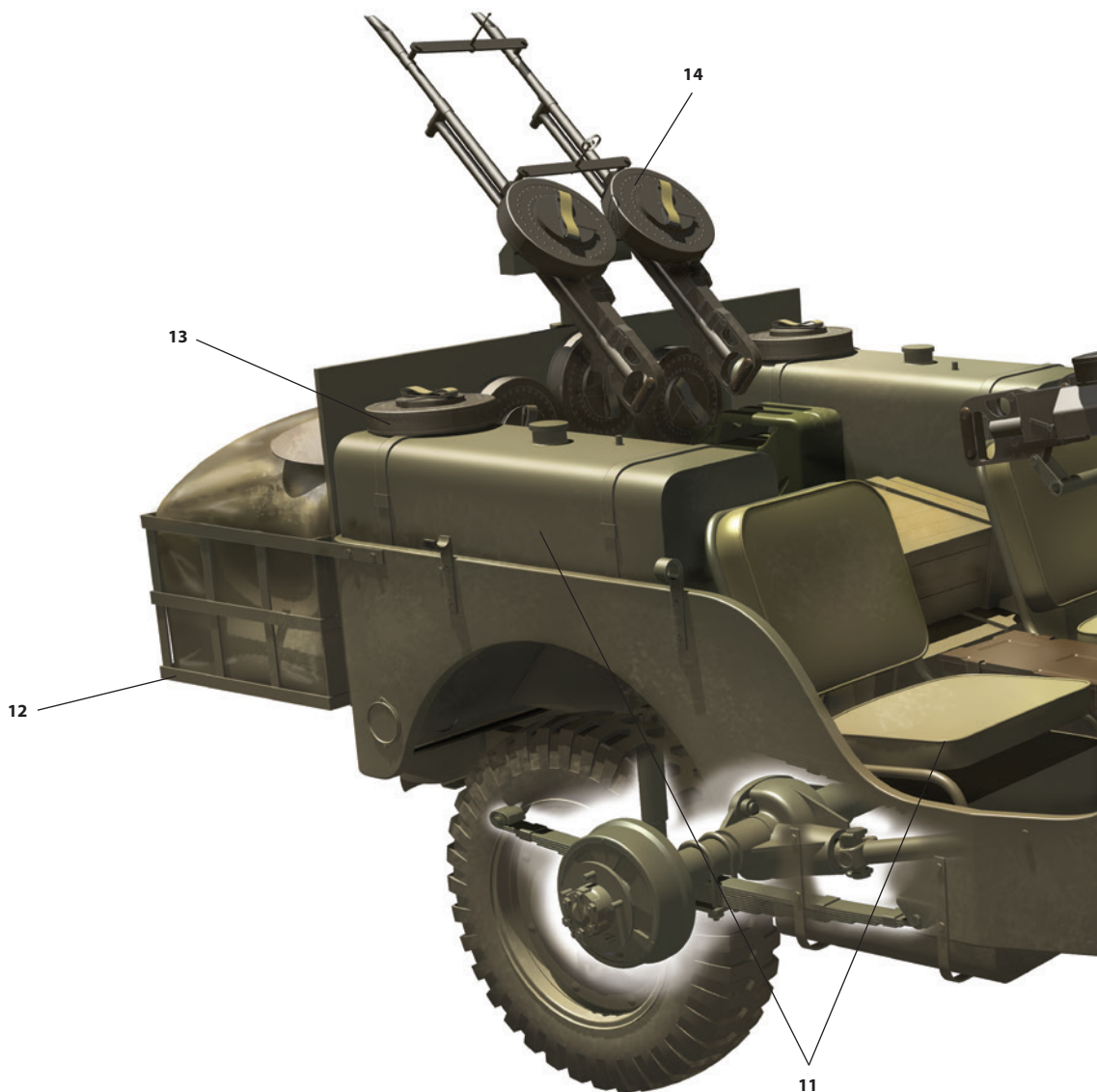


The barrel of a Browning AN M2 .50 machine gun, 1945. Fitted in most American fighters, the Browning was introduced on SAS jeeps in late 1944 and proved a reliable and effective weapon. It had spade grips, weighed 61lb, had a rate of fire of 800rpm and a muzzle velocity of 2,900FPS (feet per second). Visible on the jeep on the right is an example of a pannier, attached to the rear of jeeps for personal kit to be stowed. (Gavin Mortimer)

D

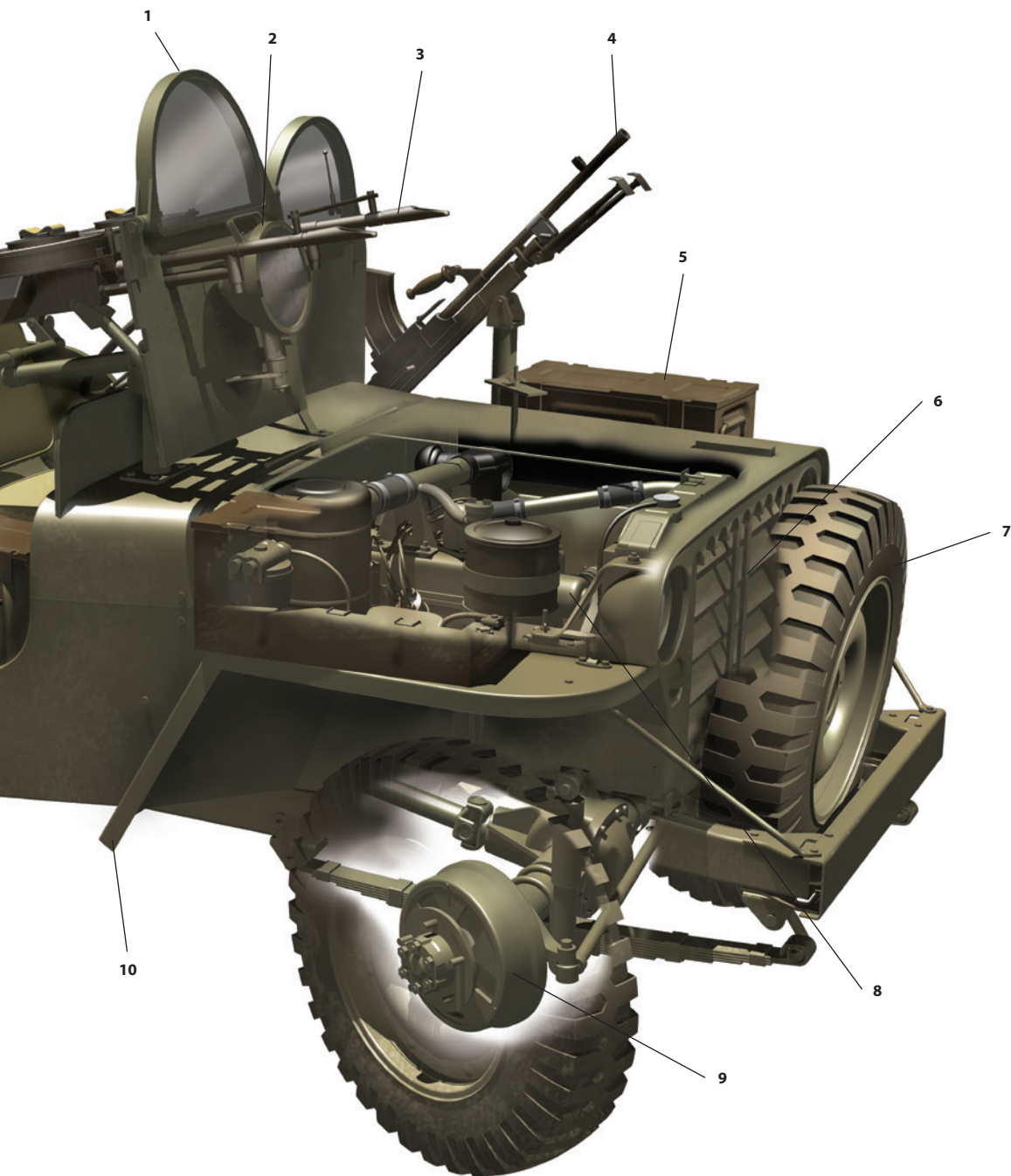
SAS WILLYS JEEP, EUROPE 1945

The twin Vickers K machine gun was David Stirling's first choice as the jeep's weapon, and it remained a favourite for the rest of the war, and beyond. Taken from the obsolete Gloster Gladiator aircraft, they could fire up to 1,000rpm. The front Vickers was mounted on a pipe that went up from the chassis through the floor, glove box and front scuttle in front of the passenger. A second twin Vickers faced rearwards on a mount set through the floor pan, and a single gun was mounted on the driver's wing. From the late summer of 1944 the driver and front passenger were protected by a rectangular armour plate or gun shield and the driver also had an armoured windshield. An armoured plate was also fitted in front of the battery and the rear gunner had the option of an armoured plate in front of his Vickers. Other innovations in 1944 included spotlights, rear smoke dischargers, a storage rack fitted to the rear of the jeep and a handrail bordering the bonnet.



KEY

1. Armoured plate and half-moon windscreen added in 1944
2. Searchlight
3. Twin Vickers. Some jeeps had a Browning .50.
4. Driver's Bren gun. Some were fitted with a single Vickers.
5. Spare ammunition box
6. Slatted-iron grille. Some were removed to assist cooling.
7. Spare wheel
8. L134 2.2-litre engine
9. 80in wheelbase with leaf springs and shock absorbers
10. Lightweight steel Chassis. The Willys weighed 1040kg.
11. Extra 12-gallon petrol tanks were fitted, two self-sealing ones behind the driver's passenger seats and one under the front passenger seat.
12. Folding Pannier for personal kit
13. Spare top-mounted pan magazines for Vickers
14. Read twin Vickers mounted on a spigot swivel capable of 1000rpm



The spotlights and rear smoke dischargers had been fitted on some jeeps in August 1944, along with the armour plating, but while the latter were welcomed, the former were not to Farran's taste. His recommendation that a rack be fitted was accepted, and although most photographs of SAS jeeps in 1945 show this storage unit at the back, one or two veterans recalled it being on the side or front of their jeeps.

Lieutenant Mike Mycock who, as a member of Operation *Kipling*, had taken possession of the modified jeeps that were issued to the SAS in August 1944, recalled that when his squadron (C) was in Brussels two months later, it received a new consignment of vehicles. 'Once again the jeeps were fitted with armoured plate in front of the radiator and in place of the windscreen, and in front of the twin Vickers that were mounted in front of the passenger seat,' he wrote. 'Self sealing petrol tanks were fitted under the seats and above the rear wheels which, when full, gave us a range of over 800 miles. A new addition was a limited supply of the .5 calibre cannon of the type used in Typhoon aircraft which were mounted at the rear or the front in place of the twin Vickers.'

This was the Browning AN M2 .50 machine gun. In fact, the Hawker Typhoon aircraft carried the .30 Browning, and it is believed that it was the LRDG that, in the North African campaign, salvaged a Browning from a downed Typhoon that it came across on a desert patrol.

The .50 Browning was fitted in most American fighters (and in the gun turrets of many bombers) and proved a reliable and effective weapon. It had spade grips, weighed 61lb, had a rate of fire of 800rpm and a muzzle velocity of 2,900ft/sec.

This section shall concentrate predominantly on 1SAS. Its sister regiment, 2SAS, and the French and Belgian components of the Brigade, undertook some audacious operations in Italy and Holland, but the bulk of 'jeeping' was carried out by the four squadrons of 1SAS as they spearheaded the advance into Germany.

By this stage of the war Rory McLeod had been replaced as brigadier by Mike Calvert, who had made his name as a jungle fighter with the Chindits in Burma in 1944.

Operation *Archway* was a composite force from 1SAS and 2SAS under the command of Lieutenant-Colonel Brian Franks (it was codenamed 'Frankforce'). It crossed the Rhine at Bislich on 25 March, two days after Field Marshal Montgomery's 21st Army invasion force had started the short trip over the river. The SAS and its jeeps crossed in LVT-4 (Landing Vehicles Tracked) Buffalos, amphibious personnel carriers (APCs) that could carry one jeep in their cargo holds and had ramps at the rear for rapid disembarkation.

Interestingly, *Life* magazine, on 10 January 1944, had a photograph of an amphibious jeep which, as it noted, was nicknamed the 'quack' or 'seep'. This was the Ford GPA 'Seep', which went into production in 1941, but proved inadequate.

A jeep with a rear-mounted twin Vickers K, spring 1945. Note the spotlight attached to the armour plating; these features had been introduced in August 1944, but while the plating was welcomed by the SAS, many found the spotlight ineffectual and discarded it. The 'Wear Wolf' [sic] graffiti is a reference to the Nazi resistance force that was raised to hamper the Allies' advance into Germany. Called the 'Werewolves', they offered little serious opposition and were usually swiftly overpowered. (Gavin Mortimer)





An SAS jeep stowed inside an LVT-4 Buffalo before the crossing of the Rhine on 25 March. Operation *Plunder* began two days earlier when the first elements of Field Marshal Bernard Montgomery's 21st Army Group crossed the river; the SAS followed in some of the 600 APCs used in the advance into Germany. Designed in 1943, the LVT was the first APC with a stern ramp for the unloading of personnel and vehicles. The honeycombed boxes above the tracks are wash vanes that expelled water when the LVT was in motion. (Gavin Mortimer)

At 3,500lb, it sat low in the water, which made it vulnerable to anything more than a light swell. On land it was too slow and cumbersome, in marked contrast to the Willys jeep, which rapidly made its presence felt in Germany.

Operating with the 18th US Corps, the 2SAS component of Frankforce reconnoitred ahead of the 6th Independent Guards Tank Brigade; 1SAS performed a similar role for the 6th Airborne Division from Erle to Rhade. 'It was found that the infantry welcomed the jeeps even more for their mobility and fire power than for the information they gave,' remarked the entry for the SAS operational diary on 28 March. 'So much so that Major Tonkin's 1st SAS Troop was ordered to precede the 6th Airborne Infantry in their advance down the road along which they were advancing.'

The SAS did, and was ambushed by small arms fire and anti-tank weapons from the woods on both sides of the road. Squadron Sergeant-Major Reg Seekings, one of the handful of 1941 'Originals' still with the Regiment, saw his gunner, Mackenzie, and his wireless operator (w/o) suffer wounds to their arms by a burst of fire. 'I said "right, do what you can to man the guns, it will help us break through this ambush"', recalled Seekings. 'We bolted a way through with Mac with his one hand firing one of these twin Vickers, the w/o firing another with his one hand, and I was driving with one hand firing the bloody Vickers on my side. I put my ruddy foot down and broke

By the time the men of 1SAS and 2SAS involved in Operation *Archway* had reached Kiel, shown here, Hitler was dead and the war in Europe was about to end. They embarked for the UK on 10 May 1945, many of the jeeps festooned in the spoils of war collected on the advance through Germany. This jeep has its rear pannier visible and also identifiable is the rear Vickers with its armour plating. Not all rear guns sported armour plating; it was the choice of each gunner. (Gavin Mortimer)



Taken in April 1945, this remarkable image shows the 1SAS men of Operation *Howard* sheltering from sniper fire in a German forest. While two soldiers hug the earth, the man on the right appears less concerned – that is Lieutenant-Colonel Paddy Mayne, who would shortly be awarded a third bar to his DSO for another demonstration of outstanding leadership and peerless courage in rescuing his men under enemy fire. Notice the .50 Browning on the two jeeps as well as the twin Vickers on the rear of the vehicle in the foreground. (Gavin Mortimer)



through and then about five hundred yards up the road we ran into the first of the Airborne troops, and they told me I'd find the doctor about two miles back.'

The other 1SAS force was codenamed Operation *Howard* and had at its head the redoubtable Paddy Mayne, DSO and two bars. On 10 April he added a third bar to his remarkable tally as the SAS acted as the eyes and ears of the 4th Canadian Armoured Division as it penetrated into northern Germany in the direction of Oldenburg. 'It was an awkward operation,' said one of the men, Corporal Sid Payne. 'We were supposed to be accompanying the Canadian armoured brigade but we couldn't see them as there was some distance between us. We were also too lightly armed for the task.'

B Squadron, commanded by Major Dick Bond, was ambushed as it drove in the direction of the village of Borger. Mayne was travelling with C Squadron, having equipped his jeep with a gramophone and loudspeaker in order to play a selection of his favourite Irish ballads. When he heard of Bond's death over the radio, and the news that several of his men were pinned down by sniper fire, he took charge.

On arriving at the scene, Mayne ordered Lieutenant John Scott to man the twin Vickers in the back of the jeep. He then drove down the road as Scott pumped rounds into the woods and, on reaching a crossroads, Mayne swung the jeep round and came tearing back with Scott continuing to lay down a suppressing fire. Twice more the jeep drove up and down the road until, satisfied that the enemy had been subdued, Mayne braked and helped his trapped men into the jeep.

It was a magnificent demonstration not just of Mayne's courage and leadership, but also of the power and capability of the jeep. It was fitting that Mayne, the man who three years earlier had been the first in the SAS to spot the vehicle's potential, should be the one who in that one incident demonstrated its versatility and the way in which it was the perfect complement to the SAS.



Interesting points to note in this photo of C Squadron in the spring of 1945 include the Bren gun as the driver's weapon, instead of the more common single Vickers, and the spare wheel at the front. The handrail around the front bonnet was fitted in early 1945 and saved at least one SAS soldier's life. Ambushed by the Germans in April, Bob McDougall, of C Squadron 1SAS, was blown out of his jeep and rescued himself by grabbing the rail of another jeep and hitching a ride to safety. (Gavin Mortimer)

POST-WAR: THE LAND ROVER ERA

The SAS returned to England in May 1945, a few days after the surrender of Germany, and many of the men brought with them the spoils of war. 'One way we got the loot through was to let down the air of the tyres, take out the inner tube and pack in the loot and then put the valve back,' recalled one 2SAS soldier.

After spending the summer overseeing the German surrender in Norway, the Special Air Service was disbanded in October 1945, but two years later it was revived as a Territorial Army unit – 21SAS (Artists) – at the instigation of Lieutenant-Colonel Brian Franks, commanding officer of 2SAS in the last year of the war. The '21' derived from 1SAS and 2SAS, the two British wartime regiments, and the Artists were the Artists Rifles, a battalion of the Middlesex Regiment raised in the 19th Century and with whom the SAS amalgamated in 1947.

In 1950 the SAS Regiment received a Corps Warrant, just as war broke out in Korea, and Franks lobbied for the SAS to be sent to the north of the country to conduct long-range reconnaissance missions behind Communist lines.

In fact, it was decided that the SAS's presence was not required and instead it was sent to deal with another Communist uprising, this time in Malaya, where for the first time in SAS history it fought a jungle war. Initially called the Malayan Scouts, in 1952 they became 22SAS Regiment and returned to the regular army, comprising four squadrons.

While there was no need for vehicles in the Malayan jungle, back in the UK the SAS began using the Austin Champ, described by Peter de la Billière – who joined the SAS in 1956 and rose to command the Regiment – as

An Austin Champ on display at a motor show. The first Champ (or Truck, ¼ Ton, 4x4, CT, Austin Mk.1, to give it its full title) rolled off the production line in 1951 after winning the British Army contract to design an equivalent to the Willys jeep. (Alf van Beem/CC0 1.0)



The Rhodesian SAS was disbanded in 1980 when the country was renamed Zimbabwe, under the leadership of Robert Mugabe. In the late 1970s the Rhodesian SAS was active in the bush, using foot patrols, parachute insertion and jeeps. This Land Rover is fitted with smoke grenade launchers at the front and the weapon is a 7.62mm general-purpose machine gun, known as a GPMG. (Jonathan Pittaway)



a 'jeep-like vehicle in which each team rode, towing their trailer full of equipment'.

The first Champ (or 'Truck, ¼ Ton, 4x4, CT, Austin Mk.1', to give it its full name) rolled off the production line in 1951 after winning the British Army contract to design an equivalent to the Willys jeep. Fitted with a Rolls-Royce-designed B40 four-cylinder engine of 2,838cc, the Champs also had high-output generators and surplus batteries to power radio equipment, and were dubbed 'Fitted For Wireless' (FFW) vehicles, although soldiers more commonly referred to them as 'trucks'.

They entered service in 1952 and soon proved their versatility, being used as field ambulances, telephone line-laying vehicles or, in the case of 22SAS, as offensive vehicles equipped with armour-plating and a .303in Vickers medium machine gun or .303 Bren light machine gun.

The Champ may have earned the approval of the soldiers, but, it being expensive to produce, the bean-counters within the Ministry of Defence were less impressed; the MOD looked around for a cheaper alternative and decided that Land Rover could manufacture a utility vehicle for half the price without compromising operational effectiveness.

In his memoirs, De la Billière mentions using Champs in Oman in the late 1950s when 22SAS was deployed in utmost secrecy to the Arabian

E

109in LWB SERIES II LAND ROVER, 1960s

The Series I Land Rover was introduced into the SAS in 1955 and was a faithful servant of the Regiment for more than a decade before it was phased out in 1967 and replaced with the Series II version. The Series II Land Rover seen here, boasted a 2.25-litre petrol engine and had an 88in wheelbase (later increased to 109in). It retained most of the same features, such as the .30 Browning in the rear, although the twin Vickers in the front passenger seat were replaced with twin Bren guns. Note the mortar tubes beneath the radiator grill and the spotlight to the left of the driver. This was an innovation of the Rhodesian SAS when fighting insurgents in the Bush War. Jerricans of petrol were stored at the front and rear of the Land Rover and, conforming to the trend of the wartime SAS, the doors and windscreen have been removed.





ABOVE LEFT

A consignment of Land Rover Series IIs in Rhodesia (Zimbabwe). They were modified according to SAS specifications and were used extensively by the Rhodesian SAS in the long-running Bush War against insurgents. Note the twin Bren guns in this view. Although most commonly associated with World War II, the Bren saw service in the Korean War and remained a respected weapon in the British and Commonwealth forces until the turn of the century. Many of the Rhodesian Brens were re-chambered for 7.62mm cartridges similar to those in the British Army. (Jonathan Pittaway)



ABOVE RIGHT

Four members of the Rhodesian SAS in their Land Rover, early 1960s. Note the (empty) jerrycan holders at the front of the vehicle, the twin Brens in the front passenger seat and the mounted spotlight above the driver's head. (Jonathan Pittaway)

Peninsula to safeguard oil production from tribal insurgents. But their use must have been short-lived because by then the Series I Land Rover had been introduced.

Described officially as a 'truck, ¼ Ton, 4x4, SAS, Rover Mk3', the Series I Land Rover had an 88in wheelbase (increased from 86in in 1956) and a 2-litre petrol engine. The doors and windscreen were removed, as was the middle portion of the front seat. A radio was fitted in the rear of the Land Rover where there was also a seat (facing the rear) for the gunner or wireless operator. Beneath this seat was an auxiliary fuel tank. The rear gunner operated a .30 Browning and the front gunner had a twin Vickers and, much later, a pair of 7.62mm general-purpose machine guns. Some Land Rovers boasted a third machine gun that was stored and not mounted.

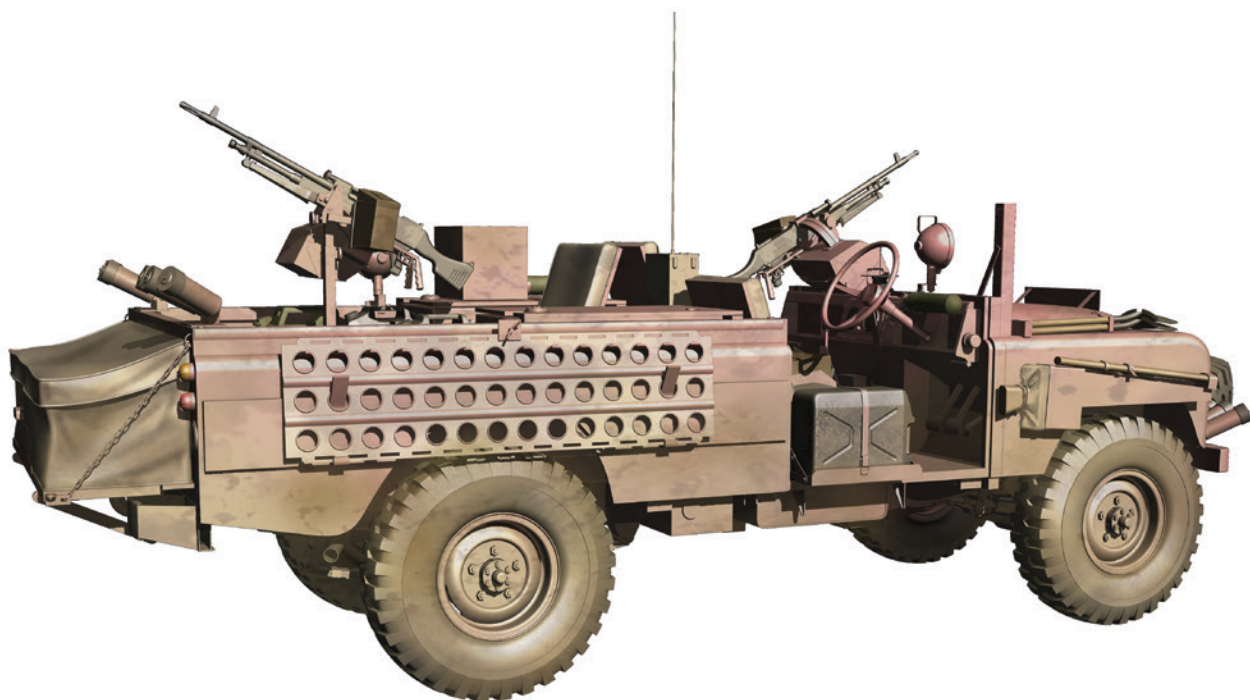
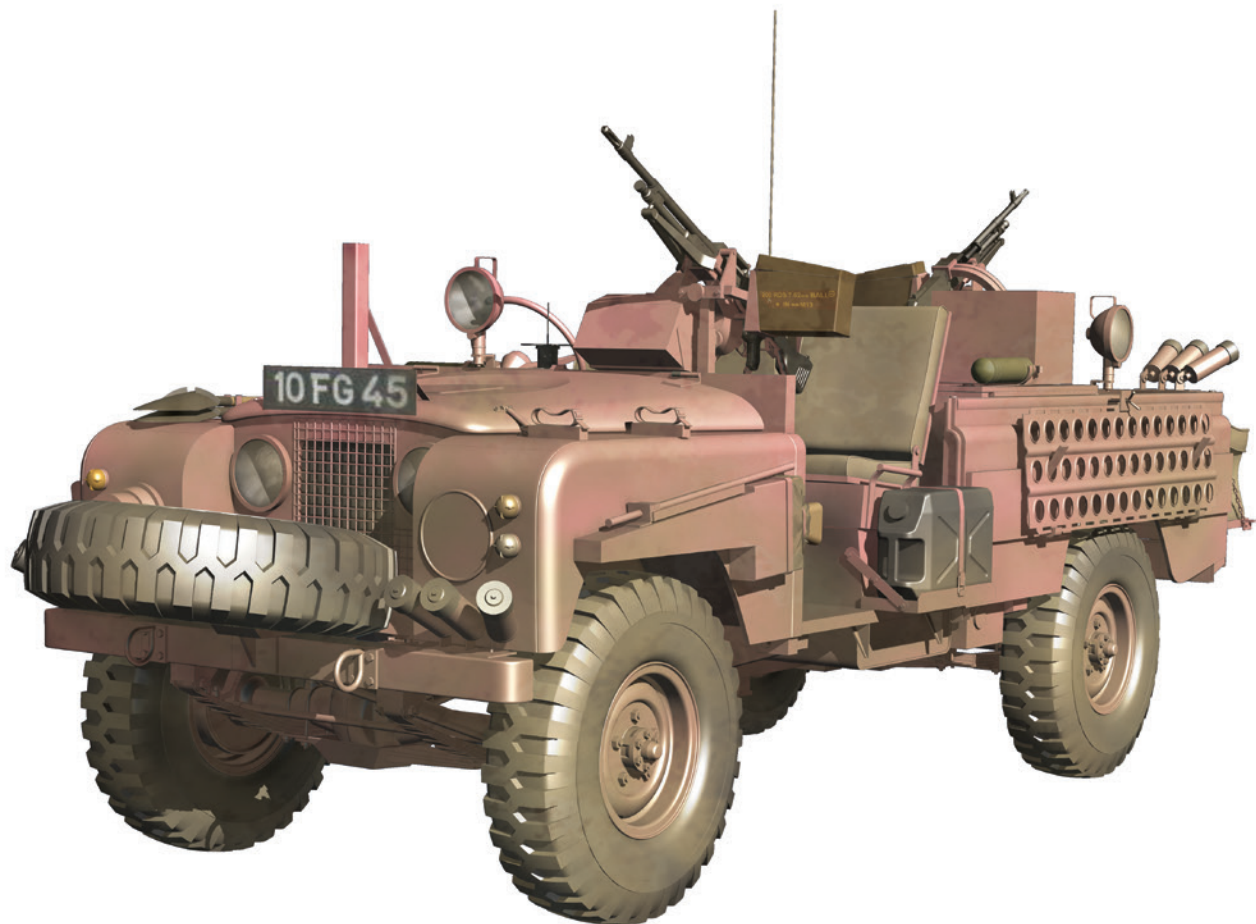
As was the case with the Willys jeep in World War II, additional kit was carried in cages attached to the vehicle at the soldiers' discretion, and jerrycans of petrol were stashed on a reinforced front bumper and inside the Land Rover.

The Series I Land Rover became operational with the SAS in 1955 and gave the regiment more than a decade of good service before it was replaced in 1967 with the Series IIA 109 Land Rover. By then the SAS was a multi-skilled regiment and squadrons had a 'Boat Troop', an 'Air Troop', a 'Mountain Troop' and a 'Mobility Troop'. Writing in his history of the SAS, Michael Asher, who served in 21SAS, said that the latter specialized in Land Rover operations in various terrains and was skilled in vehicle mechanics and desert navigation. The Land Rovers were also used by the Rhodesian SAS (Rhodesians had been operating with the British special forces since the early months of the LRDG and several served in the wartime SAS) during the

F

SERIES II 'PINK PANTHER', 1960s

Affectionately known as 'Pink Panthers' or 'Pinkies', the Series IIA 109 Land Rover was painted in the same pink that had inspired the LRDG vehicles in North Africa over a quarter of a century earlier. The Series IIA had two decades of service with the SAS, including in Oman. With a wheelbase of 109in and a 2.25-litre petrol engine, it was considerably superior to the Series I. The chassis had shock absorbers and heavy-duty springs in place of the leaf-spring suspension, and there was also a hydraulic steering damper. The front passenger seat was on a raised platform and additional seating was added over the rear wheel arches. Over time, the Series IIA phased out the Vickers and .30 Brownings and replaced them with 7.62mm GPMGs (the Gimpy) front and back, although Browning .50s were sometimes preferred. Fitted on the two corners facing out were smoke grenades. There was a radio in the back and up front a second ground-to-air radio. Most jeeps carried eight jerrycans in the back and steel sand channels were stashed along the side of the vehicle.





Members of the Rhodesian SAS in standard Series I Land Rovers on a joint exercise with 22SAS in the Eastern Aden Protectorate in 1962, hence the lack of armament. Arab nationalist resentment of a British presence in the Yemenese port had been simmering for years. It exploded in 1963 with the attempted assassination of the British High Commissioner, Sir Kennedy Trevaskis, leading to the declaration of a state of emergency and the deployment of 22SAS in 1964. The Series I was launched in 1948 and went out of production in 1957. (Jonathan Pittaway)

long-running Rhodesian Bush War that ran from 1964 to 1979.

The first Land Rovers arrived in Rhodesia in the early 1960s. Series II vehicles were modified by the SAS to the same specifications as their British counterparts. A detailed report in a Rhodesian newspaper described some of the

work undertaken by army mechanics of 2 Workshops Company: 'The modifications included co-axially mounted Bren guns on the front, a single anti-aircraft Bren at the rear, a spotlight, radio and three smoke dischargers on each vehicle.'

In addition, continued the report, most of the modifications were done by hand, and almost 5,000ft of materials were used, including 'angle iron, flat and round bar, piping and other materials'.

There were frequent clashes on the northern and eastern borders of Rhodesia, and the use by the rebels of Russian-supplied landmines began to take its toll. 'I became increasingly concerned about our method of deployment by vehicle especially as our Land Rovers were not and could not be mine-proofed. One landmine could kill or wound four or five highly trained SAS soldiers in one pointless action,' recalled Major Barney Bentley.

As the SAS began to deploy by parachute, so the vehicles were put to another use, recalled one SAS veteran: 'It was not unusual to see a Squadron member roaring around Salisbury in his own Sabre Land Rover glancing at his reflection in the rear-view mirror to make certain that the fit of his coveted beige beret was to his satisfaction.'

The Series IIA 109 Land Rover had a wheelbase of 109in and a 2.25-litre petrol engine, and was also bigger than its predecessor in storage space. The chassis had heavy-duty shock absorbers and leaf-spring suspension with a hydraulic steering damper. The front passenger seat was on a raised platform and additional seating had been added over the rear wheel arches. Many of its features would have brought back memories to the wartime SAS: twin auxiliary fuel tanks (increasing the fuel load to 100 gallons), smoke grenade launchers, SLR rifles in wing boxes, a sun compass, search lamps, a blackout lamp and a folding pannier for personal kit, which was fixed to the rear of the vehicle.

G

LAND ROVER HCPU

The Land Rover 110 HCPU replaced the 'Pinkie' in 1985 as the Regiment's new Desert Patrol Vehicle (DPV), although the new vehicle retained the nickname, for obvious reasons. Fitted with coiled-spring suspension with a wheelbase of 110in and powered by a 3.5-litre V8 diesel, the 110 was a more comfortable ride than its two predecessors. The HCPU also packed a far more powerful punch. Its Vinghog softmounts were capable of accommodating a 7.62mm GMPG, a .50 Browning, a Mk19 40mm grenade launcher and a Milan wire-guided missile launcher mounted on the DPV roll bars. Smoke canister launchers were installed on the front and rear of the 110s and the SAS discarded the vehicle's headlights and brake lights to avoid accidental illuminations during night operations. The 110s saw service in 1990 during Operation *Desert Storm*, the first Gulf War, as mobile patrols entered Iraq and attacked Scuds, the Soviet-made ballistic missiles launched from vehicles or, more rarely, fixed launching sites, that had been deployed against Israel and Saudi Arabia.



A Land Rover Series II on display at the British Motor Museum in Gaydon, Warwickshire. With a wheelbase of 109in and a 2.25-litre petrol engine, it was bigger than its Series I predecessor and the chassis had shock absorbers and heavy-duty springs in place of the leaf-spring suspension. Twin auxiliary fuel tanks increased the fuel load to 100 gallons. They served 22SAS faithfully for nearly 20 years. Dubbed 'Pink Panthers' or 'Pinkies' for obvious reasons, the colour scheme originated in 1940 when the LRDG realized pink was the best colour for camouflaging vehicles in the desert. (DeFacto/CC BY-SA 4.0)



Another link with the past was its colour. Fresh out of the box, so to speak, the Series IIA 109 Land Rover was bronze green, but it was painted pink when deployed to the desert. The LRDG had discovered in 1940 that pink is the best colour for camouflaging vehicles in the desert (plain yellow or salmon pink were the most common, but some LRDG patrols chose more elaborate schemes, including a mix of blue, green, yellow and pink stripes).

Having painted its Land Rovers pink, the vehicles became affectionately known as 'Pink Panthers' or 'Pinkies'. One break from the past was that the Series IIA 109 phased out the Vickers and .30 Brownings and replaced them with 7.62mm GPMGs (the Gimpy) and Browning .50s.

In 1985 the SAS acquired the Land Rover 110 HCPU as its new Desert Patrol Vehicle (DPV). Fitted with coiled-spring suspension with a wheelbase of 110in and powered by a 3.5-litre V8 diesel, the 110 (which still retained the 'Pinkie' nickname on account of the colour) was a more comfortable ride than the Series 1 and II Land Rovers. It was also far better armed with Vinghog softmounts for a veritable arsenal of weapons, which included a 7.62mm GMPG, a .50 Browning, a Mk19 40mm grenade launcher and a Milan wire-guided missile launcher mounted on the DPV roll bars.

It was the choice of SAS patrols – and dependent on the nature of the operation – which weapons were mounted on their 110s. Some were tried and discarded for various reasons – including the unreliable GIAT 20mm cannon – and others were stored inside the vehicle, including 81mm mortars, 84mm LAW anti-tank rockets, FIM-92 Stinger SAMs and M72 66mm rockets. Smoke canister launchers were installed to the front and rear of the 110s and the SAS dispensed with the vehicle's headlights and brake lights to avoid accidental illuminations during night operations.

The 110s served the SAS for two decades before being phased out, most notably during *Desert Storm*, the first invasion of Iraq in 1991. According to Michael Asher, two squadrons (A and D) and half of B Squadron were transported with their 110s to a forward operating base in Saudi Arabia, south of the Iraqi border, in Hercules C-130s in the middle of January. The mobile patrols of A and D Squadron were tasked with

hunting down Scuds (Soviet-made ballistic missiles launched from vehicles or, more rarely, fixed launching sites), while the order issued to B Squadron was to split into three eight-man groups, inserted by Chinook helicopter, and carry out reconnaissance patrols.

B Squadron, the exploits of which were immortalized in the best-selling book, *Bravo Two Zero*, by Andy McNab, was given the option of taking a short-wheelbase Land Rover 90 – a ‘Dinky’ – with them, but only one of the three patrols took up the suggestion. The other two patrols went in on foot.

It was an error of judgement. In contrast, D Squadron found rich pickings when it crossed into Iraq in its Pinkies with dirt bikes scouting ahead and acting as a link between vehicles, because of the radio silence. The drivers of the 110s wore night-goggles and the lights were taped over. On board the Land Rovers were MIRA thermal-imagers that could detect the enemy in poor visibility, a crucial piece of kit, given the flurry of snow that swept the region during the incursion. The vehicles were a veritable arsenal: as well as the GMPG, a .50 Browning, a Mk19 40mm grenade launcher and Milan wire-guided missile launcher, the men carried M16s, M203 grenade-launchers and Minimi light machine guns.

Two months earlier, David Stirling had died aged 74, and it was surely not lost on the men of D Squadron, as they drove into Iraq, that they were following in the footsteps (or should that be tyre tracks) of Stirling and his SAS Originals. Fifty years earlier, they had caused havoc for German and Italian forces in Libya and, as 22SAS closed in on the Iraqi Scud launchers, it was going to inflict similar damage. The vehicles had changed, but not the soldiers’ daring.



The Land Rover 110 HCPU, seen here driven by the British Army during the 1991 Gulf War, came into service with 22SAS in 1985. Fitted with coiled-spring suspension with a wheelbase of 110in and powered by a 3.5-litre V8 diesel, the 110 was armed by the SAS with a 7.62mm GMPG, a .50 Browning, a Mk19 40mm grenade launcher and a Milan wire-guided missile launcher mounted on the DPV roll bars. During the war against Saddam Hussein’s Iraqi forces, the 110 was used by the SAS to launch attacks against Scud missile launchers. (Master-Sergeant Edward D. Kniery/USMC)

FURTHER READING

- Asher, Michael, *The Regiment: The Real Story of the SAS* (Penguin, 2008)
 Cowles, Virginia, *The Phantom Major: The Story of David Stirling and the SAS Regiment* (William Collins, 1958)
 Farran, Roy, *Winged Dagger: Adventures on Special Service* (Collins, 1948)
 Ford, Roger, *Fire from the Forest: The SAS Brigade in France, 1944* (Cassell, 2004)
 Kemp, Tony, *The SAS at War: The Special Air Service Regiment, 1941–1945* (Penguin 1991)
 Mortimer, Gavin, *Stirling’s Men: The Inside Story of the SAS in World War II* (Weidenfeld, 2004)
 Mortimer, Gavin, *The SAS in World War II: An Illustrated History* (Osprey, 2011)
 Wellsted, Ian, *SAS with the Maquis: In Action with the French Resistance, June–September 1944* (Greenhill, 1997)

INDEX

Page numbers in **bold** refer to illustrations and numbers in brackets are caption locators.

amphibious vehicles 36–37, 37
Arab headdresses 19, 25
armour plating 15, 28, 29–30, 29, 30, 34–35, 36

Asher, Michael 42, 46–47
Auchinleck, Gen Claude 10

Badger, Ted 12
Bagnold, Ralph 11
Benghazi 7–8, 17–18
Bennett, Sgt Bob 14
Billière, Pierre de la 39–40, 42
Bitz Buggy *see* early vehicles
Bond, Maj. Dick 38
Borrie, Alec 28–29
Bradford, Capt. Roy 26, 26, 27(26)

Calvert, Brig. Mike 36
casualties and losses 17, 18, 24, 25–26, 28, 31
Chambon-la-Forêt 26, 28, 30
Churchill, Winston 4
Close, Roy 29, 29
colour schemes 12, 43(42), 46, 46
Cooper, Johnny 7, 8, 12, 15
Craig, Joe 28, 29

Devine, Bill 26, 26, 27(26)
Druce, Capt. Henry 31
Dubroy, Lt 25
Duffy, Bill 28
Dunkley, Sgt Frank 28, 28

early vehicles
Chevrolet 1533X2 5, 5
Ford C11ADF station wagon (Bitz Buggy) 6–10, 7, 8, 9(8)
Ford F30 4, 6
engines 6, 7, 12, 26, 40, 42, 44
executions 24, 31

Farran, Maj. Roy 19–20, 25, 30–31, 32, 33, 36
Fenwick, Maj. Ian 15, 26, 28, 28, 30
Ford (company) 11
Ford, Roger 21–22
France, invasion of 21–31
attack on Autun shale oil refinery 24–25
jeeps, parachute drops of 21–23, 23(22), 24
SAS role 21
Franks, Lt Col. Brian 21, 36, 39
Fraser, Maj. Bill 22
fuel cans 13–14, 18, 42
Fugner, Sgt Heinrich 18–19

gas-powered vehicles 22
Grayson, Lt 25
Germany 32–39
grenade launchers 45(44), 46
guerrilla warfare 4, 24–25

Iraq 46–47
Italian invasion 18–21

jeeps 10–18, 10, 11, 15
agility and versatility 20, 37, 38
agricultural use 24
armour plating 15, 28, 29–30, 29, 30, 34–35, 36, 37

Austin Champ 39–40, 39
clutches 32
durability 25–26
Ford GPA ‘Seep’ 36–37
graffiti 36
headlights/spotlights 31, 36
opinions of, and recommendations for use 31, 33, 36
panniers 14, 15, 33, 34, 36, 37
parachute drops of 21–23, 23(22), 24
petrol tanks 29, 36
Willys jeep 11–13, 11, 12, 13, 19–20, 20, 24, 34–35
see also Land Rovers
Jellicoe, Capt. George 10–11, 13

Kershaw, Dave 12

Land Rovers
Land Rover 90 47
Land Rover 110 HCPU 45(44), 46–47, 47
Series I 40, 41(40), 42, 42, 44
Series II ‘Pink Panther’ 43(42), 44, 46, 46
Landing Vehicles Tracked (LTV) 36, 37
landmines 44
Laycock, Col. Robert 5
Layforce 5
Lewes bombs 6
Lewes, Jock 5
Long Range Desert Group (LRDG) 5–6, 10, 13–14, 46
Lovat, Lord 4

machine guns 11
7.62mm GPMG 46
Bren gun 39, 42, 44
Browning 18, 33, 36, 38, 40(30), 46
magazines 17, 25, 28, 28
single Vickers K 13, 18, 20, 25, 25, 35
twin Vickers Ks 14–15, 15, 16, 16, 18, 25, 26, 28, 33, 34, 36, 37, 38, 40(30)

McDiarmid, Sgt James 25, 30
McDougall, Bob 39
McGinn, Cornelius 25–26
Mackie, Lt Jim 20
Maclean, Fitzroy 6–7
McLeod, Brig. Rory 21, 36
McNab, Andy 47
Malaya 39–40, 42
Mars & Minerva (SAS journal) 14
Marsh, Maj. Tony 28
Mather, Lt Carol 16
Mayne, Lt Col. Blair ‘Paddy’ 6, 6, 10–11, 15, 18, 19, 31, 38, 38
medals and awards 38
Melot, Maj. Bob 30
memorials 26, 30
missile launchers 45(44), 46
Montgomery, FM Bernard 17, 36
mortars 25, 32, 46
Muirhead, Capt. Alex 24, 25
Mycock, Lt Mike 36

Niven, David 5, 28

Operation *Archway* 36–38
Operation *Bulbasket* 21–22, 24, 24
Operation *Crusader* 5
Operation *Houndsworth* 21, 22, 24, 25–26
Operation *Howard* 38, 38

Operation *Knife* 4
Operation *Loyton* 31
Operation *Wallace* 31, 32
Owen, Capt. David Lloyd 6

Payne, Cpl Sid 38
post-war era 39–47

radiator grilles 12, 13, 20, 32
railways 18, 21, 24–25, 31
Rhodesian SAS 42, 42, 44, 44
Riding, Capt. Cecil 29
Ridler, Sgt Duncan 30
Riley, Pat 12
rockets 46
Rommel, Gen Erwin 6, 10

Sadler, Mike 16, 31
sand channels 7, 11, 43(42)
Scott, Lt John 38
Scud missiles 47
Seekings, Sgt Maj. Reg 7, 12, 37
Shaw, Bill Kennedy 13
Sidi Haneish airfield 16–17
smoke canister launchers 40, 43(42), 44, 45(44), 46
smoke dischargers 33, 36, 44
snipers 38, 38
Sorensen, Charles E. 12
Special Air Service (SAS) 4, 13
aircraft destruction 6, 10, 15–16, 17
driving knowledge 17, 28
effectiveness 31
encounters with German convoys 25–26, 27(26), 29
expansion 18
in France 21–31
in Germany 32–39
in Italy 18–21
‘mass’ attacks 15–16
origins 4–5
partnership with LRDG 6
post-war era 39–47
reorganisation 19
role in French invasion 21
SAS Brigade 21
self-sufficiency 6–10
shooting skills 17
training 15, 19, 21, 28
Special Raiding Squadron (SRS) 19
Stirling, David 4–5, 5, 6, 7–8, 10, 13, 15–16, 17, 18, 19, 47
captured 18–19
Stirling, Lt Col. Bill 4, 6, 19, 21
Supreme Headquarters Allied Expeditionary Force (SHAEF), ‘Revised SAS Planning’ (memo) 21
surveillance 24

thermal imaging 47
Thomson, Arthur 14, 17, 18
Tobruk 17
trailers 32–33

water condensers 13, 14
Watson, Lt Jimmy 29
Wellsted, Capt. Ian 24, 25
White, Sgt Fred ‘Chalky’ 25–26
Willys-Overland 11
Wiseman, Capt. John 24

OSPREY PUBLISHING

Bloomsbury Publishing Plc

Kemp House, Chawley Park, Cumnor Hill, Oxford OX2 9PH, UK

29 Earlsfort Terrace, Dublin 2, Ireland

1385 Broadway, 5th Floor, New York, NY 10018, USA

E-mail: info@ospreypublishing.com

www.ospreypublishing.com

OSPREY is a trademark of Osprey Publishing Ltd

First published in Great Britain in 2021

This electronic edition published in 2021 by Bloomsbury Publishing Plc

© Osprey Publishing Ltd, 2021

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or any information storage or retrieval system, without prior permission in writing from the publishers.

A catalogue record for this book is available from the British Library.

ISBN: PB 9781472846808; eBook 9781472846815;

ePDF 9781472846785; XML 9781472846792

Index by Angela Hall

Typeset by PDQ Digital Media Solutions, Bungay, UK

Osprey Publishing supports the Woodland Trust, the UK's leading woodland conservation charity.

To find out more about our authors and books visit

www.ospreypublishing.com. Here you will find extracts, author interviews, details of forthcoming events and the option to sign up for our newsletter.